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I.—THE NATURE OF UNIVERSALS (I).

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THE position which I shall adopt is that universals, expressive of genuine identities and not merely of similarities, are necessary to knowledge. This position can be, and has been, questioned. But for the purpose of these articles I shall ask to be allowed to assume its truth. The sole question which I shall discuss is what, granted the necessity of universals, we ought to mean by them. After statement of the main problem, I will endeavour to develop a positive standpoint, first through criticism of the teaching of Bradley and Bosanquet, and secondly by way of comment upon the recently published views of Cook Wilson and of Stout. All of these writers propound some type of idealism; and being myself of that persuasion, I can best define, by their aid and by reference to them, such reasons as I have found, in this and that regard, for differing from them.

The position ordinarily adopted by those who believe in universals is that universals are either qualities characterising a number of distinct particulars or relations recurring in a number of different situations. Thus if it be asserted that A is red and that B is red, what, on this view, is meant is that though the things A and B are distinct and spatially separate, one and the same identical character is found in both. It is as against this fundamental thesis that the outstanding difficulty in regard to the nature of universals—the difficulty which has given rise to so endless an amount of discussion—at once presents itself. By what right are things and characters thus differentially treated? The red that is seen

in A is spatially separate from the red that is seen in B. If spatial separation justifies us in regarding A and B as numerically distinct, why not also in the case of the characters? What justifies us in saying that though A and B are numerically distinct, the red thus seen in two places is none the less identical in both?

The usual reply is somewhat as follows:[1] There is, we seem justified in saying, an essential difference in the meaning of our statements according as they refer to concrete things or to characters. A concrete thing cannot be locally separate from itself; one and the same concrete thing cannot be in two places at the same time. Characters or qualities, on the other hand, differ from concrete things precisely in this respect. No amount of spatial separation and no amount of multiplication can destroy the identity of the colour. The reds may, indeed, be spoken of in the plural, as being locally separate and as two in number; but these ways of expression, correctly interpreted, apply, it can be said, only to the concrete things which are thus coloured, not to the colour itself. When we say 'A is red and B is red,' we are applying one and the same predicate to both, and what we are asserting is that the same specific colour belongs to these two spatially separate things. We have made no assertion, and so long as our statements mean what they claim to mean, we have no right to assert, that the colours themselves are separate in the sense in which the things are separate. Qualities, unlike concrete things, "spread undivided, operate unspent".

The implications of this general thesis can be further defined. When two different things are said to be, in this or that respect, identical, their differences, whether spatial or temporal or in sensible characters, are not, of course, being denied. That would destroy the whole point of the assertion made. What we are maintaining is that different things, notwithstanding their admitted differences, are in this and that respect the same; or in other words, that sameness can exist together with difference and is not in any way destroyed by it.

> "We [may] not [be able to] say how far it extends, or what proportion it bears to the accompanying diversity; but sameness, so far as it goes, is actually and genuinely the same."[2]

[1] *Cf.* G. E. Moore, *Relativity, Logic and Mysticism* (Aristotelian Society, 1923), pp. 105-106.

[2] Bradley, *Appearance and Reality* (2nd ed.), p. 351.

> "However much [the] diversity may preponderate, however different may be the whole effect of each separate compound, yet, for all that, what is the same in them is one and identical." [1]

These quotations, when thus taken in isolation, are, of course, by no means unambiguous. The view for which I shall later argue is that though conditions (surroundings, etc.) may make a thing *lose* a given character, at any given time the character is either there, unmodified, or not there at all. This, I presume, would be the position of Moore and Johnson, but not of Bradley and Bosanquet.[2]

Further, just as the abstract thesis, in and by itself, says nothing as to the amount of sameness that persists in and through diversity, so also it leaves entirely open the question as to what the sameness will or will not bring forth. Sometimes the identical character involves the diverse things in active community. This happens when two souls meeting are, by their identity, drawn together. But it does not happen (at least not in the same direct manner) when they are sundered in time. This is still more obviously so in the material world, as ordinarily interpreted in the physical sciences.

> "In Nature sameness and difference may be said everywhere to exist, but never anywhere to work. This would, at least, appear to be the ideal of natural science, however incompletely that ideal has been carried into practice. No element, according to this principle, can be anything to any other, merely because it is the same, or because it is different. For these are but internal characters, while that which works is in every case an outward relation." [3]

Sameness and difference are, indeed, indispensable for those processes of identification and discrimination through which the external relations are discovered and formulated. But this only reinforces the contention that sameness and difference, while omnipresent in Nature and necessary to our knowledge of it, are not, in themselves, directly operative. The diverse interpretations of which these statements allow may again be noted. For Bradley they suggest a *criticism* of natural science; those, on the other hand, who have a different metaphysics can accept the negative criticism as only drawing attention to what we should in any case have expected.

Indeed, this would seem to be the point at which such

[1] *Op. cit.*, p. 352.

[2] *Cf.* below, note to p. 143.

[3] *Op. cit.*, p. 353.

thinkers as Bradley, Moore and Johnson diverge from one another, taking fundamentally different views as to the nature of the consequences to which they believe themselves to be committed in the acceptance of these positions.

Thus when we propound to Bradley the question: Can two numerically distinct things, A and B, have common predicates? his answer is twofold. If, he says, we are talking about existences in space and time—and that is what so far we have been doing—then we are moving in the realm of appearances, a realm in which any statements that can be made are contradictory of one another and ultimately of themselves. If two distinct things, A and B, are in any respect identical, then to that extent each transcends itself and is the other. In the realm of appearance, not only may such self-transcendence be allowed as occurring, it is, Bradley declares, the fundamental characteristic of appearance as such. It is the very nature of a finite appearance so to behave. Its 'what' is loosened from its 'that'; its existence is incompatible with its nature; it carries us beyond itself to what is other and different. The problem, therefore, as Bradley conceives it, is not as to what, in face of the separateness of things in space and time, we should mean by universals; but how such separateness—in other words, how finite centres—can exist in appearance, when a single indivisible Absolute has to be allowed as alone real. Bradley does not claim to be in a position to answer this question, but only to have shown the necessity of propounding it. Self-transcendence, and the external relations in which alone it can find expression, are, he argues, what constitute appearance; and if, as he further argues, all such relations can be proved to be self-contradictory, there is no option save to postulate a Reality in which content is never loosened from existence, and in which self-transcendence is therefore neither possible nor required. This is why Bradley has been so ready to adopt the view of universals as being identical in their various instances; it is because he has no belief in the real separateness of the latter.[1] If A and B are not really what they would seem to be, separate and distinct, there need be no obstacle in the way of our holding, on the contrary there must be every reason for holding, that the 'red' is identically the same in both.

[1] *Cf.* Bosanquet, *Logic* (2nd ed.), vol. ii, p. 279. "I quite see for myself that [identity in difference] must go 'in the end,' that is to say, in any experience for which objects are self-contained, and cease to transcend themselves. . . . Undoubtedly the Real is self-complete and self-contained. But I insist on the words 'in the end'."

This, then, being Bradley's attitude—that the separateness of things in space and time is merely appearance, and that the question how the existence of identical characters can be reconciled with this separateness is consequently an unreal problem—it is not surprising that he pays little further attention to it, and while still occasionally making reference, always in a depreciatory manner, to 'abstract' characters, gives his whole attention to the type of identity which, by contrast and in the manner of Hegel, he entitles the 'concrete universal'.[1]

This doctrine of the 'concrete universal' has, ever since Hegel, played so prominent a part in the idealist philosophies that, as I have just suggested, it has almost entirely displaced the problem from which I have started. Accordingly I shall have to employ the remainder of this and a second article in its discussion. I shall then, however, be in position, in a third article, to return to the main problem in the precise form in which I have stated it above, and with the advantage of having meantime defined certain of the main issues involved.

Bradley makes the transition from the abstract to the concrete universal in a very abrupt, offhand manner, which has the effect of concealing from his readers the numerous, highly questionable assumptions upon which he is proceeding.

> "To deny [that a sameness can exist together with difference] is to affront common sense. It is, in fact, to use words which could have no meaning. . . . If you will not assume that identity holds throughout different contexts, you cannot advance one single step in apprehending the world. There will be neither change nor endurance, and still less, motion through space of an identical body; there will be neither selves nor things."[2]

In other words, Bradley is here maintaining—a contention fraught with far-reaching consequences, and calling therefore for the most careful and considered argument—that the main evidence in proof of universals lies not in characters common to separate existences, but in the self-identity of each thing, whether in and through motion, or in and through qualitative change, or in and through the diversity of its constituent attributes. It is this latter type of identity which, in contrast to the former, he entitles 'the concrete universal'.

This method of distinguishing between two kinds of

[1] *Cf. The Principles of Logic* (2nd ed.), vol. i, p. 188. "The *abstract* universal and the *abstract* particular are what does not exist. The *concrete* particular and the *concrete* universal both have reality, and they are different names for the individual."

[2] *Appearance and Reality*, pp. 347-348.

universals is especially bewildering in view of Bradley's assertion that universality is, by its very essence, abstract.

> "Identity obviously by its essence must be more or less abstract; and when we predicate it, we are disregarding other sides of the whole. We are asserting that, notwithstanding other aspects, this one aspect of sameness persists and is real."[1]

At first we may be tempted to think that Bradley must be distinguishing between universality and identity. That, however, is not his intention. For by the abstract universal he means an identical character found in separate particulars, and by the concrete universal the identity wherein a thing or self expresses itself through its changes and in the diversity of its constituent characters. The two types of universal mark out these two types of identity: identity of character or quality in differing things and the self-identity of a single continuing existence.

In passing, we may note that when universality is thus equated with identity, relations, not being readily reducible to either type of identity, tend to be left out of the reckoning.[2] Bradley does, indeed, frankly recognise that relations resemble characters in being universals. The relation of being 'to the right of' is the same relation however many be the situations in which it is found. But both characters and relations he groups together under the heading of the 'abstract universal,' and as such they share in a common neglect. His all-absorbing interest is in the other type of identity, the lesser

[1] *Appearance and Reality*, p. 351.

[2] This is one main reason for Bradley's very sceptical teaching in his doctrine of the judgment. A judgment, as he interprets it, never asserts a relation. When we say, 'This tree is green,' we are not asserting of an *appearance* that it stands to greenness in *the relation of* substance to attribute. What, according to Bradley, we are alone ultimately asserting is that 'Reality, *i.e.*, the Absolute, is *such that* appearances are so apprehended'. The 'such,' which on this view is alone ultimately asserted, is not itself a relation but a quality. Bradley entitles it a 'latent quality,' meaning that, though postulated as real, it is not itself known. Similarly, when we assert that 'A is to the right of B,' we are not asserting the *reality* either of the appearance A or of the appearance B, and accordingly we are also not asserting the *reality* of the spatial relation. In the 'Absolute' there can be no relations. To assert a relation is, by implication, to define reality in terms of what is peculiar to appearance, and therefore other than itself. As to Bradley's acceptance of Bosanquet's restatement of his doctrine, I shall have more to say later. In anticipation of my argument, I may here state the point of view from which my criticisms are made. The furthest that I can go in agreement with Bradley and Bosanquet is to formulate the ultimate implication of the propositions as: 'There is an actual situation of which 'This tree is green' (or 'A is to the right of B') is a partial description'.

and greater perfections of which are, as he believes, so many degrees in which human experience, achieving truth, proceeds towards the 'Absolute'.

Bosanquet has given a fuller treatment both of the abstract and of the concrete universal; and I shall adopt his exposition as the basis of my discussion. Let us consider—it will not involve much repetition—his statement of the relation of the two types of universal to one another. The universal, he states, is in both forms an identity in difference. To take first the abstract universal: things, in order to be similar, must be in some respect identical. If two substances be red or spherical, then to the extent of their redness or sphericity, they are the same. Such identity is, however, compatible with any amount of difference in other regards.[1] Notwithstanding such identity the substances may differ in their spatial and temporal relations, and in most (though not in all) their other characters. Such forms of identity Bosanquet therefore entitles abstract universals. They do not subordinate to themselves the differences among which they are found. A substance that is red may be cinnabar and therefore heavy, or a child's balloon and therefore light. A spherical substance may be of any kind of material. The identity is in each case *indifferent* to the varying circumstances; the substances have through possession of it only that *superficial*—so Bosanquet regards it—type of unity represented by a class. Should we view objects in terms of this kind of universal, the most incongruous conjunctions will be brought about; things really connected in their essential features will be grouped apart, while the classes actually constituted will yield no insight into the diversity which each displays. It is by contrast to the abstract universal, as thus depicted, that Bosanquet defines the concrete universal as being always individual. As already stated, Bosanquet would frequently seem to be maintaining that identity is never indifferent to differences, *i.e.*, that there are no *common* qualities, and therefore no universals of the abstract kind. If he be held to strict account in these statements, criticism will have to take an even more radical line than I have been following. We should then have to ask:

[1] I say in *other* regards: for if Bosanquet, as he would frequently seem to do, goes further than this (*cf.* above, p. 139), and maintains that a character is never indifferent to differences, and therefore never remains precisely the same in different instances (*e.g.*, that humanity is different in each of its instances, *i.e.*, that we never find 'common' features among men) then he is coming very close to the position of Cook Wilson and Stout, that the universal is a name for the totality of the instances.

Can Bosanquet in any way account for the fact that we *do* use this kind of universal?

Now when Bosanquet describes the concrete universal as being the individual, he does not, of course, merely mean that every individual embodies universals, and is not cognisable save by means of them, namely, as being light or heavy, as this or that type of element or compound, as inorganic or organic, as non-personal or personal, and so forth. He means so very much more than this, and is using the term 'universal' in a manner so contrary to ordinary usage, that at first we are apt to interpret his statements as merely figurative in character. He means, however, precisely what he is saying when he declares that the individual, *qua* individual, is a universal, and is more genuinely so than its abstract counterpart.

> "Most people have some sort of schema which helps them to handle their philosophical ideas. The traditional schema of the universal . . . was, I suppose, extent of area. The greater universal included the wider surface, and was more abstract. The schema I should now use would be more like a centre with radii, or simply a subject with attributes, the greater universal having the more or more varied radii or attributes, and being therefore the more concrete. Such a schema is particularly in harmony with taking an individual as designated by a proper name for the example of a universal."[1]

The criticism which, as we have just noted, Bosanquet passes upon the abstract universal is that while it represents an identity which is found among differences, it is indifferent to these differences, and would seemingly remain what it is even if they were quite other than they are; or if this is going too far, we are at least, he argues, within the truth in saying that it affords us no aid in understanding these differences. An individual, on the other hand, such as Julius Cæsar, is dominant in the determination of circumstance. Even when events happen to him through merely external causes, they are put to such use, and have such consequences, as his personality can alone render understandable.[2] Not that his personality is antecedent to, or is indifferent to, the course of events. In this type of existence it is equally true that if the differ-

[1] *Essays and Addresses*, pp. 166-167.

[2] Bosanquet, it may be pointed out, tends to ignore (what presumably he would not deny) that this is quite as true of everything else. If a body is, *e.g.*, spherical, what happens to it will depend on this fact as well as on what things come in contact with it.

ences are as they are the identity must be what it is, and that the identity being what it is the differences have, from the start, been constrained to reckon with it, and in the degree in which it is dominant, to conform.

This being Bosanquet's reason for describing the individual as a concrete universal, the nature of the contrast between the concrete and the abstract universal can be further defined in the two following ways :—

(1) The abstract universal is adjectival to its differences (white to the different things that are white); whereas in the case of the concrete universal the reverse relation holds; the differences are adjectival to the identity (as being so many expressions of its constitution). The abstract universal is either a quality in an object or a predicate in a proposition; the concrete universal is a self-conditioning being and is itself the subject of all the propositions into which it enters.

(2) The abstract universal is instrumental to knowledge; through it, used as a predicate, a subject is apprehended. But since, in each such application, it is (on Bosanquet's view) determined to a fuller, more specific meaning, it is to the subject-term, *i.e.*, to a universal of the concrete type, that all meaning and significance must ultimately be traced. All knowledge is knowledge of the individual—the individual that may not be opposed to the universal but is itself the type of all universality which is not merely abstract. As above indicated, I am not at present raising the question whether, on his principles, Bosanquet can justify even such partial recognition of 'the merely abstract'.

So far Bosanquet's method of argument is straightforward and unambiguous. It suggests, however, one obvious objection; namely, as to the legitimacy of the terminology which is being employed. It has, of course, been usual to define the universal as 'the one in the many,' meaning by 'the many' numerically distinct particulars. But what, we may well ask, are we being committed to, when required to interpret 'the one in the many' in this other very different sense which renders it applicable to each particular thing or self? If the original meaning of the term 'universal' involves its distinction from the term 'particular,' can this meaning, by any legitimate process of analogy, be so extended as to render the term synonymous with the particular? A term cannot signify its own opposite, not even if that opposite be a counterpart which it presupposes for its own completion. The term 'husband' does not signify 'wife,' though each term has meaning only in and by reference to the other.

Bosanquet has taken account of this objection, and indeed

welcomes it as affording an opportunity of defining his position more precisely. Though he has stated that Julius Cæsar is a very serviceable illustration of what should be meant by a concrete universal, it is no part of his contention that each and every particular existence is so in equal degree. There are two points of view from which a finite being can be regarded, and to mark the difference in these points of view Bosanquet requests permission to differentiate much more definitely than is customary in ordinary speech the meanings to be attached to the terms 'particular' and 'individual'. A finite thing in so far as it excludes other finite things is, as we may agree, very suitably entitled finite—and a *particular* finite at that; and as such it is correlative to the universal, being that which participates in but is none the less to be distinguished from it. But the same finite thing in so far as it subordinates diversity, and change, of content to the maintenance and expression of an abiding unity, displays to us a very different aspect of its being, and one which is less apt than its particularity to receive sufficient attention. The prevalence of "natural kinds" with their repetitious instances, and the sharp-cut outlines whereby each such instance seems to segregate itself off from the rest of reality, mark out the 'particular' in too obvious a manner to be overlooked. It is unmistakable, as being at once in this and that character similar to certain others, and as in its existence exclusive of all others; and as being, therefore, in these respects, an instance of this and that abstract universal. It is only in proportion as we pass beyond the merely physical domain that the other aspect of finite being comes into anything like corresponding prominence; and even then it is so much more difficult to envisage, and there is consequently such constant temptation to assimilate it to better known types on lower planes, that it is very necessary to have a term exclusively appropriated to denote it; and in Bosanquet's view no term is so suitable for this purpose as the term 'individual'. The term 'individual' then signifies that combination of diversity with unity which, as we have seen, is what Bosanquet means by the concrete universal. The abstract universal applies to things considered only in their aspect as so many resembling but mutually exclusive particulars; the concrete universal is a name for each thing in its other aspect, namely as exhibiting a complex internal constitution.

It is in order to make quite unambiguously clear the kind of universality intended, that Bosanquet has selected as its type and exemplar, in the person of Julius Cæsar, a self-conscious and rational being. The sharpness of the boundaries

of Cæsar's physical organism is obviously secondary in significance compared with the inclusiveness of his spiritual nature. He is a Microcosm in communion with the Macrocosm. The Macrocosm is *the* Universe; but each Microcosm is *a* Universe; and though still finite, and therefore still in another aspect a particular, may without unduly violating the properties of language—so Bosanquet maintains—be fittingly entitled a universal. Working back from this obvious instance, we shall then be in better position to detect some corresponding aspect of individuality even in those existences in which on first view it is seemingly lacking. The term 'individual,' when thus employed, is not synonymous with the term 'particular,' but rather its opposite counterpart; and it is therefore easily understandable that while the particular has by general admission to be distinguished from the universal, conceived as abstract, the same particular in its aspect as individual can none the less be identified with the universal, conceived as concrete.

My statement, however, of Bosanquet's teaching in regard to the concrete universal is not yet complete even in outline. For we have still to consider the alternative form in which he expounds it, namely, by contrasting the abstract universal, not only as hitherto with a concrete individual, but also with what is signified by such terms as organism, world, cosmos, and (above all) system. Each of these latter terms refers to a complex which consists of members such that while distinct from one another, nevertheless, just by virtue of the features which render them distinct, they contribute to the unity of the whole. Accordingly, here also, the unity is a unity different in type from that which is generated when an abstract character, employed in and by itself, brings together its heterogeneous embodiments into the superficial unity of an aggregate or class. And since the unity of an articulated system, like that of an individual, is sameness *by means of* difference, it also is concrete.

The statement of this second antithesis, taken by itself, is again straightforward and unambiguous. The differences between a group or class and an organism, cosmos or system (which Bosanquet treats as differences between the *unity* of a class and the *unity* of an organism or system), are certainly sufficiently important to call for their careful discrimination. Up to this point, therefore, though I am largely out of sympathy with Bosanquet's general teaching, I have no difficulty in following his argument, or indeed in allowing, granted his general point of view, the legitimacy of his procedure. If it is to be possible for us to believe in the kind of Absolute to

the exposition of which the philosophies of Bradley and Bosanquet are so single-mindedly devoted, this doubtless must be on some such lines as those suggested. But after long-continued struggles to disentangle the reasons which Bosanquet assigns for the next following stage—unfortunately he never explicitly distinguishes the stages—in his argument, I find myself settling into the conviction that they are such as do not allow of clear and unambiguous statement.

The stage in Bosanquet's argument to which I am referring comes at the point when he proceeds, under cover of the phrase 'individual system' (which, so far as I can see, can only mean single system), to run together his two pairs of contrasted terms—the abstract universal and the individual on the one hand, the abstract universal and system on the other—by identifying system with individuality. I say system with individuality, and not reversewise; for it is individuality which alone remains, as an ultimate category of thought, when his argument is complete, system being treated as a relational, and therefore as ultimately a self-contradictory, type of unity. Of course, if we agree with Bradley and Bosanquet in regarding relational thinking as being by its very nature self-contradictory, any and every type of system will have to go by the board, and along with it must likewise go all finite centres and therefore every form of individuality save that of the Absolute. Short, however, of such ruthless procedure, possible only to those who can believe in a supra-relational Absolute, typified by feeling, I do not see how this last and all-important stage in Bosanquet's argument can be carried through.

To disentangle Bosanquet's argument, so far as I have been able to disentangle it, I will first consider his treatment of the abstract universal, and then proceed to comment on his identification of the concrete universal with the individual and with system.

I may recall the kind of evidence by which Bosanquet endeavours to exhibit what he describes as being the superficial character of the abstract concept, namely, the artificiality and meaninglessness of the groups which it generates. When a single character such as white is selected, it crops up in the most diverse quarters and in the most heterogeneous of bearers; and the significance of its presence, as regards the *other* properties of the concrete things, is therefore minimal in amount. The things cannot indeed be known without it; but just because the predicate is true of so many different things, no one of these things in its *specific* nature is thereby understood. It is an identity, but rather in spite of the

differences than in and by means of them; and is not therefore of any great service in knowing the differences.

There are various comments to be made upon the above statements. In the first place, it is by no means clear by what right Bosanquet should thus identify the abstract universal with the class-concept. In so far as the abstract universal is some one character, it is indeed applicable as a predicate to any and every concrete existence in which the character is found; and we may, if we please, describe this range of application as being a class. Our purpose in selecting the character need not, however, be classificatory;[1] we may be investigating the character in and for itself; and it may be in the very variety and heterogeneity of its embodiments that we obtain the needful data. Thus in studying weight, metals and feathers, as in Galileo's experiments with falling bodies, afford just the kind of variations which are most helpful. Soap bubbles and mother of pearl have each made their contribution towards the understanding of the constitution of light and of the colours which it conditions. To depreciate such universals as weight and colour, because of the extreme diversity in, and seeming lack of all connexion between, the things in which they are found, is not therefore legitimate. On the contrary, their presence in objects otherwise so fundamentally different is testimony to the pervasiveness of the agencies and conditions to which they are due, and consequently to their importance in the nature of things.

Bosanquet pursues the abstract universal with such unwavering malignity of purpose that it is not surprising to find him, in another section of his writings,[2] also denouncing it for the quite opposite reason that in its most typical forms it generates classes which, so far from exhibiting a haphazard diversity, are characterised by the monotonous uniformity of their recurrent instances. Though Bosanquet has himself made no comment on the manner in which he thus condemns the abstract universal for two quite opposite reasons, doubtless, if asked, he would have replied that such opposite defects are naturally to be expected as a consequence of the

[1] *Cf.* Bosanquet's own statements, *Logic*, vol. ii, p. 198. "It is usual to treat of classification as one special form, among others, of logical thought. I am unable to regard it in this light. It appears to me to be merely an external consequence, reappearing in every kind of universal, of the relation between universal and differences. The nearest approach to pure classification is therefore to be found in superficial arrangements destined merely to facilitate reference, in the dictionary, the index, the Linnæan system."

[2] *Cf. The Principle of Individuality and Value*, p. 32 ff.

merely external relation in which the abstract universal stands to its differences. What he is concerned to emphasise is that in the repetitious character of the instances, when they are repetitious and not merely diverse, we have an illustration of—as he expresses it—"the difference of principle" between the concrete and the abstract universal. The one, he says, signifies a world, the other refers to a class; and whereas "it takes all sorts to make a world; a class is essentially of one sort only".[1] The one is based on the uniformity of mere repetition; the other, in proportion as it is true to type, leads us in thought towards the unity of an ordered and variegated system.

This also is a mode of contrasting the two types of universal which is, I should say, much more misleading than helpful. If we take as our example of a universal one that stands comparatively near to the concrete particulars, *e.g.*, the concept of the Death's Head beetle, it certainly represents, like the class Ford car of the year 1925, a standardised type that repeats itself without significant change in each of an immense number of particular instances. The feature of monotonous repetition is at a maximum. If, however, we choose a class-concept higher in the biological hierarchy, and which is therefore more definitely abstract, and therefore presumably a more adequate illustration of the nature and function of the abstract universal, we can no longer say that while it takes all sorts to make a world, a class is essentially of one sort only. The universal 'beetle' covers some half-million different species that vary among themselves in colour and shape, in organs and instincts, in their environments and in their consequent modes of life, and yet none the less, in all these multitudinous variations, maintain a type of structure which justifies the common appellation. Just as a world may or may not be a macrocosm of microcosms—the most marked feature of the mechanical world of the traditional physics is its uniformity of structure—so a class may or may not be a type of types. In any case it is *not* in proportion to its abstractness but to its closeness to the concrete that it reduces to a uniformity of simple recurrence.

The question as to the nature of the class-concept is so central in this enquiry that it may be well, at this point, to consider Bosanquet's own very carefully considered statement as to the manner of its formation. It is no doubt true that concepts, as vulgarly employed, tend to be vague and indefinite, '*merely* abstract,' in proportion as they are of wider

[1] *Op. cit.*, p. 37.

application. The meaning, for instance, which the ordinary man attaches to the term 'beetle' contains little else than the features of smallness and of general resemblance to the few types of beetle with which he happens to be familiar. It is either too particularised or else is empty of quite specific content, and accordingly in both respects is unreliable as a guide to identification. It covers instances to which the true conception is not applicable, and excludes others which properly come within its range. In logical discussion, however, we can deal only with precisely defined concepts; we are not concerned with the fact that owing to negligence, ignorance, or vagueness of mind, they very frequently, as actually employed, fail to conform to this requirement. Now when the issue is so defined, Bosanquet has no hesitation in dissociating himself from the view that abstraction proceeds merely by omission. The example which Bosanquet himself takes is the relation of the concept 'animal' to the concept 'man'. The former concept is not formed simply by omission of certain qualities which differentiate man from the other animals. There is, for instance, something corresponding to rationality in animals, namely, intelligence. The counter-view that, while man is guided by reason, animals are ruled solely by instinct, is quite unscientific. Further, even if rationality could be regarded as peculiar to man, it would still remain true, Bosanquet maintains, that in man animality is profoundly modified from what it is in the beasts, indeed that it also varies, though in a different, less profound, manner, in each of the families of the animal kingdom. Accordingly, in forming the concepts 'man' and 'animal' we can neither merely omit the characters which vary in their instances nor proceed by simple inclusion of others that are strictly uniform.

> "Therefore the notion or abstraction which is to include both men and animals must on the one hand provide for a variable animality; must be considered, that is, not in the light of a fixed mark, but as a scheme of modifiable relations; and must, on the other hand, find room for some reference to intelligence, and not simply strike it out as a mark in which the kinds to be classified are not the same. *Prima facie* then the content of the superior class-conception is made up of the very same elements as those of the conception nearer to individual reality, only that it must represent each attribute schematically, by limits of variation, instead of embodying a fixed system of amounts or values."[1]

[1] Bosanquet, *Logic*, vol. i, pp. 58-59.

I reserve, for later consideration, in my third article, the question how far Bosanquet is justified in maintaining that the wider concept, though more schematic, ought, when properly constructed, to be more complex, not less complex, than that which applies over a narrower area. It would, however, be misleading, in this connexion, to omit all reference to so distinctive a part of his teaching.

> "Humanity, considered as a wider, and therefore as a deeper, idea, may have more content, as well as more area, than Frenchmanity. We do not really, in thinking of humanity, omit from our schematic thought all reference to qualities of Greek, Jew, English, and German, and their bearing and interaction upon one-another. It is only that we have been drilled to assume a certain neatness in the pyramidal arrangement by which we vainly try to reduce the meaning of a great idea to something that has no system and no inter-relation of parts, but approaches as near as possible in fixity to the character of a definite image, though far removed from such a character in the impossibility of bringing it before the mind."[1]

As Bosanquet further contends,[2] it is sometimes advisable to include in the concept properties that are absent in certain of the particulars or subclasses to which it applies, taking the property as present in them all but as having in these latter a zero value. This is what has to be done when, for instance, the straight line and the circle are taken as the limiting cases of the ellipse. Similarly, instead of saying with Keynes[3] that intension is "increased when we pass . . . from man to negro," it is surely, as Bosanquet maintains,

> "better to take it that the negro has qualities which are distinctive variations within the qualities of man, and which are compatible with his falling short of the full intension of man as such".[4]

Such, then, are Bosanquet's own avowed views regarding the doctrine that abstraction proceeds merely by omission.

> "The idea of abstraction thus implied is altogether wrong. The meaning of a genus-name does not *omit* the properties in which the species differ. If it did, it would omit nearly all properties. What happens is that the genus-idea represents the general plan on which the

[1] *Essentials of Logic*, p. 96. [2] *Logic*, vol. i, pp. 63-64.
[3] *Formal Logic*, p. 36, n. 1, cited by Bosanquet, *Logic*, vol. i, p. 58.
[4] *Loc. cit.*

species are built, but provides for each of the parts that constitute the whole, varying in the specific cases within certain limits." [1]

When, however, Bosanquet is seeking to justify his doctrine of the concrete universal, he allows his own avowed view of the abstract concept to fall into the background. Setting abstract universals in unfavourable contrast to concrete universals, it is upon their indifference to differences that he alone dwells. In proportion as they are 'merely abstract' they are, he declares, emptier in content, and so the less helpful. And for genuine understanding we must, therefore, he argues, look to universals of a different type, those which he has chosen to eulogise as being 'concrete'.[2]

For two reasons the term 'concrete,' as a title for the class-concept, however it be formed, is, I shall argue, illegitimate. Were there two possible ways—by abstractive omission and by constructive analysis—of forming a *genuine* class-concept, the two might doubtless be conveniently so contrasted. 'Concrete' is certainly the correlative opposite of 'abstract'. But by Bosanquet's own showing there is no such opposition; all concepts alike have a content, and the wider concept (when not wrongly formed) may have the richer content. There being, therefore, no universals of the '*merely* abstract' type with which 'concrete universals' can be contrasted, the reason which has been given for using the term 'concrete' is no longer available. But the term is also inapplicable for a second reason, namely, that though universals, in proportion as they are abstract and so apply to a greater variety of subclasses, will, on his view, if properly formed, have a greater complexity, this complexity must also at the same time, in the same proportion, be more schematic, and will therefore be further from the concrete in every usual sense of that term. Further, because of this last reason, even if the term concrete were allowed as a synonym for the term 'complex,' the phrase 'concrete universal' would still not be applicable to the individual.

Bosanquet, in his desire to justify the terminology demanded by his absolutist metaphysics, and so to represent the 'abstract' in the required depreciatory manner, is also driven to another device. He describes an abstract statement as being a "bald generality".

[1] *Essentials of Logic*, p. 95.

[2] *Cf.* especially Bosanquet's address on "The Philosophical Importance of a True Theory of Identity" in *Essays and Addresses*, p. 162 ff.; and *Principle of Individuality and Value*, p. 31 ff.

> "We are often told that the individual cannot be made by a combination of universals. It is true that it cannot be made by a combination of generalities, but the reason is that it is itself the superior and the only true type of universal." [1]

> "The most general knowledge . . . must obviously be the least instructive, and must have its climax in complete emptiness." [2]

Bosanquet adds indeed that

> "from the very beginning [in the development of knowledge] this conception is untrue. Even the baldest generality has its value in the differences of context which it includes and which it illuminates." [3]

This does not, however, prevent him from continuing to speak, in the very next paragraph, of "the abstract generalisation" and to declare that

> "a body of knowledge, if understood in the sense of a body of highly abstract rules and inferences, must be said *prima facie* to depart from what is given in experience, and truth, if taken in a similar sense, to abandon fact." [4]

The same alternation of view occurs in a more considered form in his *Logic*, in his distinction between two kinds of generalisation—*generalisation by mere determination* and *generalisation mediately by hypotheses*.[5] In the former case the general is given, being a part in a presented whole. Merely in selecting and defining it, we have already completed the work of generalisation.[6] The general, in *this* sense, is therefore analogous to an abstract character such as 'colour'. Though, like all concepts, it has its own field of possible application, it is not strictly a class-concept. Its generality is a quite secondary consequence of its being a fundamental and therefore pervasive feature of some section of the natural world. On the other hand, generalisations, in the full and proper sense of the term, proceed with great indirection. What they seek to formulate is not present in the data as initially presented, and is not discoverable merely by an extension of the range of direct observation or testimony. This is why such generalisations can only be constructed with the aid of hypotheses, and why the total data

[1] *The Principle of Individuality and Value*, p. 40.
[2] *Op. cit.*, p. 34. [3] *Op. cit.*, p. 32. [4] *Op. cit.*, pp. 32-33.
[5] *Logic*, vol. ii, p. 163 ff. [6] *Op. cit.*, p. 164.

thereby brought into view must be in some degree capable of systematic interrelation.

> "Inductive analysis can never make full provision for the application to fresh cases of a principle which it discovers, except in as far as it discloses the nature of a comprehensive *individual* system of Reality within which other individuals fall."[1]
>
> "Thus, *e.g.*, in an anthropological hypothesis about the past of the Hellenic race a considerable portion of the history of Europe is ultimately involved, and the data bearing on it are inter-related and elucidated."[2]

Now such generalisations are obviously akin to universals of the schematic type; and like them, however little capable of being arrived at by processes merely of selection and omission, are none the less highly abstract; and indeed are more appropriately so named than those more casually formed. Yet, as just stated, Bosanquet still continues to speak depreciatingly of generalisation, as proceeding always by omission; and the impression which he conveys to his readers is that when the concrete universal and the individual are thus shown to stand in the same relation of contrast to the abstract universal, they are thereby being shown to be equivalent terms.

> "The key to all sound philosophy lies in taking the concrete universal, that is, the individual, as the true type of universality."[3]
>
> "The ultimate tendency of thought . . . is not to generalise. . . . If its impulse is away from the given it is towards the whole. . . ."[4]

Bosanquet's twofold attitude—alternately rejecting and accepting the 'merely abstract'—is so patently inconsistent that I may be suspected of having given an unfair representation of his procedure. But as a matter of fact—at least so it seems to me—all that I have done is to set side by side statements which do not occur together, but always in different connexions, in his logical and metaphysical writings. That they should thus have been kept apart, not of deliberate design, but as the natural consequence of his accustomed ways of thinking, and that he himself should have been so unaware of their inconsistency,[5] is not really surprising, if we bear in

[1] *Op. cit.*, p. 169. Italics in text. [2] *Op. cit.*, p. 164.
[3] *The Principle of Individuality and Value*, p. 40.
[4] *Op. cit.*, p. 55.
[5] That he had, however, an uneasy awareness that something was wrong, is, I think, shown by his constant use of the word 'mere' as a prefix to 'abstract' and of 'mere' or 'bald' or 'simple' as a prefix to 'generalisation'.

mind the historical sources of the teaching to which he is here making himself heir.

The doctrine of the concrete universal is, of course, Hegelian in origin; and its formulation was in considerable degree influenced by Kant's distinction between understanding and reason[1]—a distinction which has tended to perpetuate in idealist thinkers the belief in a twofold employment of the intelligence, one appropriate to the uses of ordinary life and of the positive sciences in dealing with appearances, and another better suited to yield insight of a metaphysical character. Anyone who adopts such a standpoint must come, almost inevitably, to recognise two kinds of Logic, and while denouncing one of them as superficial—or, as Bosanquet has entitled it,[2] "low-grade thought"—none the less to tolerate its teaching as being necessitated by the exigencies of life on the human plane.

This is very much what we find to be Bosanquet's attitude. Though the whole trend of his logical teaching is to exhibit human thinking as uniform, alike in its methods and its criteria, whatever be the level upon which it is working, and though he has therefore to denounce the shortcomings of 'the merely abstract' universal, he still allows it as existing, and by means of its deficiencies—especially its alleged attempt to segregate identity from difference—justifies the search for a quite opposite, non-abstract type of universality, that which contains and dominates its differences. His argument would require radical restatement, and the positive portion of his teaching would have to be more independently developed,[3] were he to admit, as in view of his logical teaching he ought to have done, that a universal (unless improperly formed) is never merely abstract, not at least if it is a class-concept; and that when it is not a class-concept, but signifies a single character, it only does what it ought to do in selecting out, and having as the body of its content, this one special factor. Bosanquet himself would then have realised that in representing individuality as the pattern and true type of universality (properly conceived) he is not merely contending

[1] *Cf.* Bosanquet, *Logic*, vol. ii, p. 85.

[2] *Knowledge and Reality*, 2nd issue, p. 193.

[3] We may here apply to Bosanquet's procedure what he has himself observed in another connexion. "A change of the name by which a *whole* region of phenomena is designated is seldom a serious matter. . . . It is thus that a consistent materialist and a thorough idealist hold positions which are distinguishable only in name. But to leave a category standing, and yet to transfer the greater part of its contents to some other place in a system, is a disturbance of the *status quo* that must always demand the most careful scrutiny." *Knowledge and Reality*, 2nd issue, p. 7.

that there are two forms of universality, a higher and a lower, but is really propounding a quite impossible thesis, namely, that solely in the individual, in proportion as it is truly individual, is *universality* to be found.

Any adequate discussion of this fundamental issue must, however, lead to the raising of certain other wider considerations. These I shall endeavour to deal with in my second article.

(To be continued.)

II.—THE CAMBRIDGE PLATONISTS (I).

By J. H. Muirhead.

I.

General Place in English Philosophy.

We are apt to think of British Philosophy as on the whole of a single stream from Hobbes to Mill, and as only having been crossed about the middle of last century by a current of thought coming mainly from Germany and diverting it in an entirely different direction. This is to ignore the movement of thought which in the seventeenth century took its origin and form from the resistance which it offered to the principles represented by the writers who set that stream agoing. It is to ignore further the great writer who in the person of Samuel Coleridge stands at the head of the idealistic movement of the nineteenth century itself and may be said to have broken into the line of the empirical philosophy at the height of its influence. Finally it is to forget the connexion of the work of Coleridge with his Cambridge predecessors of more than a century before, which was at least as close as that with his German contemporaries. It is, therefore, in the interest of historic justice as well as of a more balanced view of the debt which Idealism in England and America owes to native and to foreign influences respectively that we should recall the contributions of these earlier men.

Prof. Perry has sought to draw a distinction between modern Idealism and Platonism on the ground that whereas the central motive in Platonism was "the assertion of the superiority of systematic or well-grounded knowledge to mere opinion" the "cardinal principle of modern Idealism is the assertion of *the priority of the cognitive consciousness*, the assertion that *being is dependent on the knowing of it*".[1] Whatever may be true of the pseudo-Idealism of Berkeley's earlier philosophy, the statement would be wholly misleading

[1] *Present Philosophical Tendencies*, p. 144.

if applied to British Idealism as a whole. From the beginning there has been the most intimate connexion between the two, the enduring proof of which is the work of the group of thinkers known as the Cambridge Platonists who stand at the head of the movement.

Whence precisely the particular impulse came that stimulated and inspired these men, it is perhaps difficult to say. It is tempting to connect it with the name of Descartes. Cambridge University had the honour of being the first to welcome the new thought. Between Descartes and these writers there was a certain identity of aim in that both sought for a basis in reason for man's moral and religious experience. One of the Cambridge men, Henry More, corresponded with Descartes and at one time professed himself his devoted disciple. But we have the evidence of the poet Milton writing in 1644 that tradition at that date still reigned in Cambridge providing only "an asinine feast of sow-thistles and brambles," and there is no evidence that Whichcote, the founder of the school, was at all influenced by Descartes.[1] As a body, moreover, as Tulloch has pointed out,[2] these ardent theologians had little in common with the detached sceptical spirit of the French philosopher. So far from leaving their Christian beliefs outside the sphere of their thought even temporarily as Descartes sought to do, their whole endeavour was to find the ground for them within it. It would not perhaps be fair to say that they were theologians first and philosophers only secondarily, but to them philosophy and theology were the same thing, namely, the conceptual expression of the ideas that underlie essential religious experience. Nor was it long before, with all the points of affinity which they found between the Cartesians and themselves, they came to recognise a fundamental difference of tendency. "The Cartesians," wrote Cudworth, "have an undiscerned tang of the mechanic Atheism hanging about them." Descartes, he held, had even "outdone" the Atomists in their "mechanising humour".[3] Even Henry More lived to repent his early enthusiasm.

For these reasons it seems to be misleading to represent Cambridge Platonism, as J. A. Stewart[4] does, as a correction

[1] He was already preaching and teaching in 1636. Descartes' *Discourse on Method* only appeared in 1637.

[2] *Rational Theology in England in the Seventeenth Century.*

[3] *The True Intellectual System of the Universe,* Eng. Tr., London 1845, Vol. I., p. 275. Cudworth, however, is always ready to make a distinction between Descartes' conscious object and the unconscious tendency of his thought.

[4] Art., "Cambridge Platonists" in *Encyclopædia of Religion and Ethics.*

of Cartesianism by the insertion of certain Platonic elements into a fabric otherwise accepted as in harmony with it.

We are on surer ground in seeking for the roots of the movement on the one hand in the deep-going connexion which has existed from the first between Christian and Platonic thought, and on the other in the antagonism which the entirely contrary teaching of Hobbes excited in the minds of those who had the intelligence to perceive its real drift. It is difficult to exaggerate the essential unity of principle and spirit that pervades these two great systems. Both start from the assumption of the affinity between the structure of the world and the mind of man. To Plato it was the same principle that was the source both of the being and the knowledge of the world. "The Platonic theory of knowledge," writes Perry, "was both retained and reinforced by Christianity." Similarly from the side of practice. A philosophy whose ultimate principle was the Good was committed as deeply as Christianity to the supreme reality of the moral and religious life. To neither could the ultimate opposition be between knowledge and faith. To both the fundamental antithesis was between merely natural knowledge or the unenlightened conscience and the higher light into which the soul might rise by the Grace of God. Platonism might indeed be called the intellectual side of Christianity. Wherever, from the author of the Fourth Gospel to St. Augustine, from St. Augustine to Thomas Aquinas and from Aquinas to Dean Inge, the spirit of Christian theology has been really alive, it has tended to fall back upon Platonism.

It is not, therefore, surprising that in such a time and among such men in Cambridge there should have been a revival of an independent if somewhat uncritical study of Plato. Coleridge said of them that they were "Plotinists rather than Platonists," and Prof. Stewart[1] has pointed out the mingling of the Christian religion and the Platonic Philosophy in "the doctrine and experience of ecstasy". But it is an exaggeration to say, as Stewart does, that they put this doctrine in the very centre of their philosophy. The theory of knowledge which is central in Cudworth is essentially Platonic and even with respect to the "experience" John Smith, perhaps the most really representative of them all, is ready to declare that a true Christian "is more for a solid peace and a settled calm of spirit than for high raptures and feelings of joy or extraordinary manifestations of God in him".[2]

[1] *Loc. cit.* [2] See *The Excellency and Nobleness of True Religion.*

But their Platonism might have taken no organised aggressive form nor been known outside their lecture rooms had it not been for the challenge to the whole basis on which both Christianity and Platonism stood that came from the new thought on the nature of the physical world, as interpreted by such writers as Gassendi, and the application of it to the origin of law and morality by Hobbes. While it took some time to discern the "tang of mechanic atheism" in Descartes, the danger that threatened not only the Christian but all religion, and the morality which was believed to be bound up with it, from this source was obvious from the first. To any who believed, as did these inheritors of the best traditions not only of Puritanism but of English liberty, that the authority of law and government rested in their intrinsic justice and the response to them of man's reason and conscience, nothing could be more antipathetic than a theory which taught that nothing was good or bad in itself or that the only right in the end was might. It was the vigour with which, as against this attack upon them, the principles underlying the Platonico-Christian scheme of thought were reasserted, unsystematically in the teaching of the whole school, with an attempt at system, however ponderous and overlaid with erudition, on the part of at least one member of it, at a time when it may be said to have been the sole witness to them, that gives philosophical significance to its work.

We are not here concerned with the differences of style, personality, method of approach or details of doctrine in separate individuals, but *first* with the main features of the singularly attractive theology which in the light of their central principles they succeeded in sketching out and which remains to this day the highest expression of Christian theology in England, and *secondly* with the extent to which the thought of the more speculative of them broke through any mere dogmatic limits and can be credited with a real addition to idealistic philosophy.

II.

Common Features.

Though as already said it is a mistake to represent mystic ecstasy as the centre of its teaching, it is true that the main interest of the school was religious. Its philosophy, however much it might extend to include a theory of knowledge and of nature, was a "philosophy of religion".[1] It differed from

[1] A phrase which Cudworth seems to have been the first to use.

the dogmatic system of the times *first* in the interpretation it gave of what was quintessential in religious experience; *secondly*, in the direction in which the foundation of belief in God as the object of religious experience was to be sought; *thirdly*, and as a corollary, in the view of the relation between reason and faith.

(*a*) Religion was indeed to them as to Platonism "a flight of the alone to the Alone". But the Alone, while never conceived of in any narrow anthropological way, was not left in the vague as a "splendid kind of nothing".[1]

After the manner of the Fourth Gospel, which was the source of so much of their inspiration, God was conceived of as the unity of love and knowledge. "Wherever it (true religion) finds beauty, harmony, goodness, love, ingenuousness, wisdom, holiness, justice, and the like, it is ready to say here and there is God: wheresoever any such shine out, a holy mind climbs up by these sunbeams and raises itself up to God." "God is not better defined to us by our understandings than by our wills and affections: He is not only the eternal reason but He is also that unstained beauty and supreme good to which our wills are perpetually aspiring."[2] Heaven and Hell are not things or places without us but states of our own souls: the one consisting of "a true conjunction of the mind with God in a secret feeling of his goodness"; the other of an evil spirit arising "from the bottom of our own soul". More desirable than to hear a voice from heaven giving assurance of salvation is "to find a revelation of all from within rising up from the centre of a man's own soul in the real and internal impressions of a godlike nature upon his own spirit".[3]

(*b*) It is thus from no external witness but from the nature of the soul and its experiences that we can learn of the existence and nature and operation of God. "The spirit of man," they were fond of quoting, "is the candle of the Lord". "Nullus spiritus," wrote Henry More, "Nullus deus". "Though the whole of this visible universe be whispering out the notions of a Deity, yet we cannot understand it without some interpreter within."[4] It is this that makes it so important, the author declares in the same passage, to inquire "what that knowledge of a Deity is, into which a due converse with our own naked understandings will lead us".

[1] A phrase of John Smith's in another connexion.

[2] John Smith, *The Excellency and Nobleness of True Religion*, c. viii, and *Discourse of the Existence and Nature of God*, c. viii.

[3] *The Excellency*, etc., c. vii.

[4] John Smith, *Of the Existence and Nature of God*, c. i.

(*c*) Leaving this for the moment and confining ourselves to the general doctrine, what, we may ask, by the aid of this interpreter within may be discovered in the whispers of the world without? Granted we cannot find God in the world unless we find him in our own souls, can we really find him if we do? It was a fundamental part of these men's teaching that we can. Though the spirit of man is the candle of the Lord yet is its light a derivative one. "All created excellency shines with borrowed beams."[1]

The ideas of the reason (Culverwel mentions especially that of obligation) imply the actual reality of a reason transcending ours and therewith a belief in a Providence in Nature and History. There was no point in which they believed themselves more in harmony with the great Christian as well as the great philosophic tradition, than in holding that "nature is that regular line which the wisdom of God Himself has drawn in being, whereas that which they called fortune was nothing but a line fuller of windings and varieties; and as nature was a fixed and ordinary kind of providence so fortune was nothing but a more abstruse and mysterious and occult kind of providence".[2] "It is not worth the while to live in a world devoid of God and of Providence" John Smith was fond of quoting (inaccurately) from Marcus Aurelius. He seemed even to regard it as possible for human wisdom looking from the beginning to the end of things to behold them all, in spite of apparent digressions, "acting that part which the Supreme Mind and Wisdom that governs all things hath appointed them".[3]

From all this two things followed as corollaries, the one fundamental to morality, the other to religion.

It followed in the first place that there could be no antagonism between freedom and determination. Man is free because he has the power not merely of choosing—this is merely the condition of real liberty — but of determining himself by his idea of good; he is *more fully* free according to the fulness of the good with which he identifies himself and the fulness of his knowledge of it. The discussion of freedom is apt, as Tulloch says, to be mixed up with the question of the nature of will in God, but this was only because it was seen how closely the questions were connected, and there are passages in which the true nature of human freedom is stated as well as any where else in the whole literature of idealism. "When we converse with our own souls,"

[1] Culverwel, *The Light of Nature*, c. xi. [2] *Ibid.*, c. iii.
[3] *The Excellency*, etc., c. ix. Cp. *Short Discourse on Atheism.*

writes John Smith,[1] "we find the spring of all liberty to be nothing else but reason; and therefore no unreasonable creature can partake of it: and that it is not so much any indifference in our wills of determining without reason, much less against it, as the liberal election of and complacency in that which our understandings propound to us as most expedient: And our liberty most appears, when our will most of all congratulates the results of our own judgments. And therefore the more the results of our judgments tend to our indifference, the more we find our wills dubious and in suspense what to choose and all the while the soul's liberty is nothing else but a fluctuation between uncertainties and languisheth away in the impotency of our understandings." On the other hand: "Then is it most pregnant and flows forth in the fullest stream when its object is most full and the acquaintance with it most ample; all liberty in the soul being a kind of liberality in the bestowing of our affections, and the want or scarce measure of it, parsimoniousness."

As the antithesis between freedom and determinism is thus constructively solved, so that between faith and reason. Religion is committed to the honouring of reason. It was not in vain that these men were Protestants. "Every man," declared Whichcote, "hath a right to judgment, if he be capable; yea, can a man, ought a man, to believe otherwise than he sees cause? Is it in a man's power to believe as he would or only as the reason of the thing appears to him?"[2] So Culverwel protests that religion is no "bird of prey that comes to peck out the eyes of men, no extinguisher to put out the candle of the Lord".[3] But they were also bound to recognise in the name of reason that its own was a derived light, and that it might have to trust in the source of that light where it could not see. But this was an entirely different thing from declaring the object of faith wholly beyond knowledge (in a sense they were ready to hold that the Infinite was the more known) far more from declaring that it was contrary to knowledge.

This in outline was the theory of the nature of religious experience and of the object and foundation of it that these men held. It seemed to them the fine flower of the union of what was best in the thought of the past. Could it maintain itself against the new thought whether in the open materialism of Hobbes or in the subtler form of scepticism

[1] *Discourse concerning the Existence and Nature of God*, c. ii (condensed). The passage is quoted at length in E. T. Campagnac's *Cambridge Platonists*, p. 170.

[2] See Tulloch, II, 70.

[3] *Op. cit.*, p. 19.

represented by the Cartesians? This was the question with which Cudworth and the younger men found themselves faced.

III.

Cudworth and his Work.

While the movement owed its origin and the range of its influence to men peculiarly gifted with religious insight and powers of literary expression, and while they all at times showed themselves alive to the kind of evidence which in the end must be appealed to in support of their system,[1] Cudworth was the first fully to realise what was required by a "philosophy of religion confirmed and established by philosophical reasons in an age so philosophical," demonstrated "not *a priori*, which is impossible and contradictious, but by necessary inference from principles altogether undeniable".[2]

This was the enterprise on which he embarked in his work on The True Intellectual (as contrasted with the visible and corporeal) System of the Universe. Its aim, as he tells us in the Preface, was to establish the three things which he conceived as "the fundamental or essentials of true religion. *First*, that all things in the world do not float without a head and governor; but that there is a God, an omnipotent understanding Being, presiding over all. *Secondly* that, this God being essentially good and just, there is a *φύσει καλὸν καὶ δίκαιον*, something in its own nature immutably and eternally just and unjust; and not by arbitrary will law and command only. And, *lastly*, that there is something Ἐφ' ἡμῖν or that we are so far principles or masters of our own actions as to be accountable to justice for them." His original idea had been to write a treatise on liberty and necessity, which he rightly conceived of as the central point of the whole argument, but he found that this could not be treated apart from the nature of the physical world on the one hand, and the relation of the Will of which it was the expression to goodness, justice, and truth on the other. Once grasped in its entirety the argument was seen to involve the above three problems which were also three steps in the development of it and three faces which it must present to the rival systems of the time. As against a materialism of the kind represented by Hobbes it might be sufficient to prove the

[1] See John Smith's appeal to the constitution of the "naked understanding" which might be compared to Kant's "pure reason".

[2] *Preface* to *The True Intellectual System.*

presence of a spiritual principle in the world. But this might be admitted while yet it might be possible to maintain with Descartes that the principle was that of an indeterminate will and thus after all leave goodness and justice without other support than arbitrary divine decrees. Hence the necessity of the second step. Finally, the existence of divine justice might be acknowledged as by "the Stoics and divers modern writers" and yet leave "no liberty from necessity anywhere". Hence the necessity of the third.

It was a noble design worthy of the age and the man. Unfortunately he brought to it no idea of method at all adequate to its execution in an age when his great contemporaries and rivals had already discovered one which was entirely independent of traditional opinion and against which mere learning was entirely wasted.[1] One result was that he never succeeded in completing more than the first part "wherein all the reason and philosophy of Atheism is confuted and its impossibility demonstrated". Realising the necessity, as his health failed, of condensing what was to have been the second part, he wrote the short *Treatise Concerning Eternal and Immutable Morality* which, however, was not published till 1731, forty-three years after his death. If we cannot say with its first editor that "it is drawn up with that beauty, clearness, and strength as must delight as well as convince the reader," we may perhaps agree with him in the claim for the English quality of "good sense" in the conduct of the argument, which among other things contains what Sorley describes as "a striking contribution to epistemology."[2]

Taking the two treatises together there are three points in Cudworth's work which may be said to be of permanent interest and to give him a claim to be the real founder of British Idealism. (1) The view of nature which he pressed against the mechanical systems both of other times and of his own; (2) the theory of mind as an active participant in the

[1] See W. R. Sorley's *History of English Philosophy*, p. 89. With which we may compare Bolingbroke's saying that Cudworth "had read too much to think enough and admired too much to think freely". It is possible that Hobbes had him in view when he said of himself that "if he had read as much as other men he would have been as ignorant as they".

[2] The First Part of the *Intellectual System* was translated into Latin with notes almost as long as the text and published in 1733 by Dr. J. L. Mosheim. This work was translated into English by John Harrison, M.A., and published in three volumes, including the *Eternal and Immutable Morality*, in London 1845. It is from this translation that quotations are made in the text.

process of knowledge, referred to by Sorley; (3) his view of the divine principle in the world as the action not of an arbitrary Will acting on it from without but of an immanent will to good whether conceived of as beauty, justice, or truth. If in none of these he succeeded in emancipating himself from traditional views or reaching perfect clarity, it is still possible to distinguish what is essential and what accidental in his thought.

IV.

A. Theory of Nature.

Its treatment of Nature has been something of a scandal in idealist philosophy up to the present day. In Cudworth's philosophy of it there is much that already in his own time was an anachronism and is entirely foreign to modern modes of thought. Though he was prepared to accept mechanical explanations wherever they seemed to rest on sufficient evidence, he was not prepared wholly to discard design, where the evidence seemed wholly lacking or insufficient. To us his favourite example of the angle of inclination of the plane of the ecliptic which is responsible for the seasons is unconvincing, but we can understand the temptation to exploit what seemed so mysterious an arrangement in the interest of Theism as then understood.[1] On the other hand his criticisms of contemporary theories which sought to explain all natural, including organic, phenomena either on purely mechanical principles or by appeal to the direct intervention of God, as in the theory of occasional causes, have a permanent interest; while there is no part of his system in which he strikes a more modern note than in the view of the

[1] In one of the few allusions in continental writers to British Philosophy of the seventeenth century, Leibniz in a letter of 1714 accuses the Platonists of neglecting efficient and material causes: "The Idealists, like Plato and Aristotle, are right when they find the source of all things in final and formal causes; but they are wrong when they neglect efficient and material causes and conclude as Henry More and other Platonists have done—that there are phenomena which are incapable of mechanical explanation. The Materialists on the other hand are wrong in engaging themselves simply with a mechanical philosophy, rejecting the metaphysical view and trying to explain everything by what affects the senses only." He goes on to claim that he has himself "penetrated to the harmony of the two realms". It is only justice to Cudworth to note that he held that "the mechanic powers are not rejected but taken in so far as they could comply serviceably with the intellectual model and platform" (II, 594). Is Leibniz's "harmony" essentially different from this?

presence of a plastic principle in nature which he sought to substitute for these theories.

i. Against the purely fortuitous origin of nature he urged on the one hand the appearance of order (*τὸ εὖ καὶ καλῶς*) in the whole which it seemed impossible to attribute to mere chance and the struggle for existence, and on the other, in the spirit of modern neo-vitalism, the existence of phenomena such as respiration, reparation, etc., in animal organisms which "plainly transcend the powers of mechanism". Against the doctrine of occasional causes he urged quaintly but effectively that it had no advantage over its materialistic rival in that, equally with it, it left us with "a dead and wooden world that hath nothing vital nor magical at all in it". To this, he held, it added the defect that it ignored "that slow and gradual process that is in the generation of things, which would seem to be but a vain and idle pomp or a trifling formality if the agent were omnipotent: as also those errors and bungles which are committed". But his chief argument is that the hypothesis would altogether fail of its object as a support of theism seeing that it would render divine Providence "operose, solicitous and distractious and thereby make the belief in it more difficult".

ii. The problem of phenomena that seemed in Cudworth's language to "transcend the powers of mechanism" was of course no new one. It was to meet it that hylozoism, both in the form of the endowment of every atom of matter with a soul of its own and in the form of one single all-permeating soul, was devised. Cudworth would have nothing to do with either. The former seemed, besides committing us to the absurdity of unconscious purpose and failing to explain how the souls of the separate cells could unite in the single soul of the organism, to be of no use as a basis of religion. On the contrary it was the destruction of religion by "the breaking and crumbling of the simple Deity".[1] The latter, though not in the same way violating every principle of science by the multiplication of entities, yet, in denying conscious purpose, was equally destructive of any form of theism.

His own solution was to conceive of nature as the repository of a plastic energy, akin to what recent writers have called a *nisus*, *hormé*, or *élan vital*—an organising principle in things, ever integrating and re-integrating them in a manner wholly transcending the powers of mechanism. "Though there be no vegetative soul in separate things or in the earth," he held

[1] *Op. cit.*, iii, 455. *Cp.* on the whole subject i, 106 and 144, ii, 620 foll., iii, 405.

"there may be one plastic, inconscious nature in the whole terraqueous globe, by which vegetables may be severally organised and framed and all things performed which transcend the power of fortuitous mechanism." Its general nature and mode of operation he tries further to define by contrasting it with human art. "Whereas human art acts from without, cumberously, moliminously, with tumult and hurly-burly, nature acting from within does its work easily, cleverly and silently." Again, "whereas human artists are often to seek and at a loss, and anxiously consult, not as artists but only for want of art, nature is never to seek, nor unresolved what to do, nor doth she ever repent afterwards of what she hath done". On the other hand nature falls behind art in that it "never intends those ends nor understands the reason of what it doth"; and further because "it acts without express con-sense and consciousness and is devoid of self-perception of self-enjoyment".[1] For nature is at best "no God or Goddess but a low and imperfect creature". Its art is not the divine reason and art "pure and abstract but *ratio mersa et confusa*, reason immersed and plunged into matter and as it were fuddled in it and confounded with it".

In all this Cudworth is conscious that he may be accused of appealing, in mediæval style, to an "occult quality," but he defends himself vigorously on the ground that, while this amounts to assigning no cause at all for a phenomenon and only declares our ignorance, "he that asserts a plastic nature assigns a determinate and proper cause, nay the only intelligible cause of that which is greatest of all phenomena in the world namely the τὸ εὖ καὶ καλῶς the orderly, regular, and artificial (= artistic) frame of things in the universe; whereof the mechanic philosophers, however pretending to solve all phenomena by matter and motion, assign no cause at all". It is not he but those who would make confusion the cause of order, or chance of constant regularity, that "must resolve it into an occult quality". If objection be taken to the idea of unconcious purposiveness, Cudworth appeals to the analogy of instinct in the lower animals, habits in human beings, putting aside the question as to whether these are to be called thought as one merely of words. If Nature, as Plotinus said, is "a lover of contemplation," the contemplation is of a "drowsy, unawakened or astonished kind".[2] What is essential in his doctrine is *first* that nature as a whole should be conceived of not as dead matter but as spirit that is asleep,

[1] I, 235 foll. *Cp.*, 281-282. The emphasis is on the *con* and the *self*. He does not of course intend to deny sense and feeling to animals.
[2] III, 432.

ratio mersa et confusa; and *second* that for the hard and fast division of reality into thought and extension should be substituted the idea of a hierarchy of being "climbing stairs of entity and perfections"[1] starting from resisting extension, rising thence first to unconscious then to conscious life. It is no contradiction of this that he elsewhere speaks of it as a "descent and not an ascent".[2] What he is there thinking of is the necessity of supposing that in some sense the end must be in the beginning: that "Knowledge is older than sensible things, mind senior to the world and the architect thereof".[3]

From this outline it will be seen where at once the strength and the weakness of this form of Neovitalism lie. Cudworth is on strong ground in insisting on the impossibility of resolving life into mechanism, as he himself puts it, with regard to animal life, of making "sense and reason in animals to emerge out of a senseless life of nature by the mere modification and organisation of matter".[4] No one has ever stated more clearly that life must precede organisation and cannot come out of it. Nor is there any point in which the teaching of Cudworth is more in harmony with recent biological theory.[5]

On the other hand the point in which the theologian is supremely interested, namely the relation between the "plastic nature" and the Divine Mind, is full of difficulty and can hardly be said to have received more than a dogmatic solution. It is not surprising that Boyle in a celebrated controversy with Cudworth's disciple, Le Clerc, should have attacked him on this point and pressed on him the alternative *either* of separating the Divine Mind from nature and so incurring all the difficulties which attach to the Cartesian doctrine and which the plastic theory was designed to meet; *or* of substituting an unconscious purposiveness for the conscious design of a Divine Intelligence and so failing to provide the support to religion which his theory was intended to give. But it is still less surprising that Cudworth should have failed to solve what to this day may be said to be the main problem of speculative Theism—that of bridging the gulf between self-integration and self-transcendence as principles undeniably

[1] I, 246.

[2] See below, under heading "Theology". There is nothing the whole school held to so consistently as *νοῦς προγενέστατος.*

[3] III, 420 and *passim.* [4] *Op. cit.,* iii, pp. 283-284.

[5] See *e.g.,* Julian Huxley's *The New Philosophy* where mind or "something of the same general nature of mind" is said to be "inherent in all life," and J. S. Haldane's *Mechanism, Life and Personality* where besides that "we cannot resolve life into mechanism," it is suggested that "behind what we at present interpret as physical and chemical mechanisms, life may be hidden for all we know."

operative throughout nature, and anything that is recognisable as a Divine Mind.

V.

B. Theory of Knowledge.

Coleridge criticises the whole school of Cambridge Platonists, Cudworth included, for its want of "a pre-inquisition into the mind, as part organ, part constituent of all knowledge, an examination of the scales, weights and measures themselves, abstracted from their objects".[1] It would of course be vain to look in these seventeenth-century writers for anything[2] comparable to the analysis in Kant's *Critique of Pure Reason.* But in the sections in his works[3] dealing with knowledge or, as he called it, "epistemonical" theory Cudworth not only starts the pre-inquisition, but carries it further than had anywhere yet been done and further than any critic of empiricism carried it up to the time of Kant,—further it may be added, than Coleridge himself, with the work of Kant before him, anywhere attempts to do. From the point of view, moreover, of what was to follow in the later rejection of Kant's dualism between understanding and reason, Cudworth has the merit of giving the cue to British Idealism in this respect. If this has consistently refused to draw any hard and fast line between the unitive function of the mind in physical knowledge whether perceptual, or conceptual as in the sciences, and in the apprehension of life or in the speculative grasp of the world as a whole, it was only carrying on the true Platonic tradition as interpreted by Cudworth. He saw in the work of the reason no merely regulative and provisional structure but the completion of the systematising, and therewith objectifying work of the understanding, which, as he had the signal merit of clearly seeing, must furnish us with the criterion both of truth and reality.

As Plato had developed his theory of knowledge in opposition to the sensationalism of Protagoras, so Cudworth found himself faced with a modern revival of Protagoreanism in Hobbes's contention that knowledge and understanding are "in us nothing else but a tumult in the mind raised by external things that press on the organical parts of man's body". This pressure is what we call "sensation" which "is *nothing*

[1] *Notes on English Divines* (London, 1853), pp. 128 and 351.
[2] *Pace*, Dugald Stewart. See *Dissertation*, I, Sect. vii.
[3] *Intellectual System*, iii, 417 foll. *Eternal and Immutable Morality*, p. 557 foll.

more than a motion among the particles of the sensing body". Cudworth's task is conceived by him as that of proving that, knowledge "is not a passion from anything without the mind but an active exertion of the inward strength, vigour, and power of the mind". His proof consists in showing that, besides what is passively received through the senses or survives as an image or "phantasm," we have to recognise noemata, ideas, cogitations or concepts representing an activity of the mind apart from which what is received would be entirely meaningless. What and whence are these ideas? We are tempted to explain them as merely modified phantasms seeing that these seem to be their normal accompaniments: "As we ourselves consist of soul and body united together, so are the cogitations that we have of corporeal things usually both noematical and phantasmical together, the one being as it were the soul and the other the body of them." But Cudworth was not prepared to commit himself to the dogma which denied "imageless thoughts". On the contrary he held that "there are many conceptions of which we can have no genuine phantasms at all," and even where phantasms are present the concept is something entirely different and cannot "by any strange chemistry" be extracted from them.[1] Whence then do these conceptions come?

It would still have been in order before the appearance of Locke's *Essay* in 1690 to appeal to the doctrine of "innate ideas" which was supposed to have recently received the benediction of Descartes. Cudworth is specially careful to avoid all allusion to innate ideas.[2] His own expression for

[1] He gives a witty caricature of the ordinary doctrine which sought to explain concepts as the results of abstraction, "by separation of the individuating circumstances, as it were by hewing off certain chips from them, or by hammering, beating and anvelling of them out into thin intelligible ideas; as if solid and massy gold should be beaten out into thin leaf-gold". *Op. cit.*, iii, p. 614.

[2] That this was the attitude of the younger men to the doctrine of innate or as they called them "connate" ideas is evident from the remarkable passage in which Culverwel anticipates Locke's criticisms of it. "Do but analyse your own thoughts; do but consult your own breasts; tell us whence it was that the light first sprang in upon you. Had you such notions when you first peeped into being? Had you these connate 'ideas' in the cradle? And were they rocked asleep with you? or did you meditate upon these principles: 'The whole is greater than its part'; and 'nothing can be and not be at the same time'? Never tell me that you wanted (? lacked) organical dispositions, for you plainly have recourse to the sensitive powers and must needs subscribe to this that all knowledge comes flourishing in at these lattices." While Culverwel will have nothing to do with connate ideas but looks upon understanding "as a glass not prepossessed with any connate tinctures but nakedly receiving and faithfully returning all such colours as fall upon it," these colours are

the relation between sense and idea is "invitation"; the ideas are "invited and elicited" by a process which he compares to what we should call apperception. If we could conceive of him using the phrase "transcendental apperception" this would have exactly expressed what he appears to have meant. In other words the source of the conceptual element in knowledge is traced by him not to any storehouse of ready-made ideas but to the nature of the mind itself. Concepts proceed "from the unitive power and activity of the mind itself". The examples he gives are a somewhat uncritical medley of abstract ideas—thought, volition, memory—ideals, such as justice, duty, truth,—relations of real things, such as cause and effect,—modalities, such as possibility, impossibility, necessity —ideal constructions like the triangle and the cube—logical principles like that of non-contradiction—none of which carry us beyond the commonplaces of the School. It is only when he comes to the detailed illustrations from concrete instances of what he means by the "unitive" action of the mind that a note is struck which is new and constitutes a real contribution to the idealistic theory of knowledge.

It illustrates at once the range of his thought and the imperfect division of the field of philosophy at this period that he draws his examples indifferently from politics, æsthetics, and epistemology in the strict sense. His first is from the conception of the State, made prominent at the time of writing by the individualism of Hobbes. It seemed quite natural to Cudworth that a sensationalist theory of knowledge should go along with an atomic theory which treated society as consisting of units externally bound together by contract and was blind to the deeper bond which united the members, "as it were by one will for the good of the whole." For, "though the eye may see the particular persons (or at least their outsides) that are the respective members thereof, yet it can neither see the bond which unites them together,

conceived of as coming from other sources than the objects of sense and meeting with a response from other powers than the senses. These powers are "the beginning of the soul's strength, espoused to their virgin objects, closing and complying with them long before discourse (*i.e.*, reasoning) can reach them—nay with such objects as discourse cannot reach at all". (*Cp.* Wordsworth's—

"All that, lost beyond the reach of thought,
All human knowledge, to the human eye
Invisible, yet liveth in the heart.")

In this sense he held "the Platonists were commendable that they looked upon the spirit of man as 'the candle of the Lord,' though they were deceived as to the time when it was lighted". See *Of the Light of Nature*, Chapter xi.

which is nothing but relation, nor comprehend the *totum*, 'whole' that is made up of them that is a polity or commonwealth according to the formal (= essential) nature of it; which is an idea that proceeds merely from the unitive power and activity of the mind itself".[1]

Cudworth and his friends were not primarily political writers. Where they touch on the theory of the State it is usually to disown and denounce a view like that of Hobbes which subordinates morality and with it liberty of conscience to State authority founded on power. But here his thought takes a wider sweep and penetrates more deeply to the foundations of all forms of society, as resting on the idea of a common good which transcends all forms of selfish interest. Undeveloped as the thought is, it is not difficult to see in it one of the earliest statements in English literature of the political theory which is perhaps the most distinctive contribution of British writers to Idealistic philosophy. It is here all the more striking, coming, as it does, as a deduction from the central principle of his philosophy as a theory of knowledge.

His next illustrations, taken from the products of art and organic nature, are hardly less suggestive in view of later developments. Artifects he points out are no mere collections of materials. What makes a house or a palace is the idea which it embodies. "The very essence, formal *ratio*, reason of it is made up of relative or schetical notions, in which there is a logic of whole and parts." This "print of intellectuality," so far from being a mere imaginary addition to the parts, is something which enters into their constitution by reason of which they have "more entity" in them. "The eye or sense of a brute, though it have as much passively impressed upon it from without as the soul of a man hath, if it should see all the inside also as well as the outside, could not comprehend from thence the formal idea and nature of a house or palace which nothing but an active intellectual principle can reach unto."[2]

What is true of artificial things is still more obviously true of organic creatures. It is only by a creative act of the mind that the parts can be seen in their organic unity. "Sense can give us colours either on the outside or the inside of any animals but doth not sum them up into one *totum* or whole. Such an idea that hath something of logic in it, is only conceivable by the unitive action and comprehensive power of the intellect."[3]

[1] *Op. cit.*, iii, p. 593. [2] iii, p. 594 (condensed).

[3] P. 595. This passage as well as that which precedes it on the sense of unity in objects of art reminds us of the treatment of these judgments in

His last example of such action in the field of concrete knowledge is that of the cosmos itself. Here he is in his element. As perceived through the senses the world is pluralistic. Its unity indeed he held "pierces loudly into the ears of the mind, but in such an indiscernible manner that sense, listening never so attentively, could not perceive the least murmur of it." On the other hand to "the intellectual mind," it is full of all manner of "logical scheses that unite the parts to one another, the whole with the mind" (this would have been enough for his immediate purpose; but theology was never absent from the mind of these men, and he adds) "and the mind of man to one infinite and eternal mind as containing the plot of the whole mundane music". The limits of the strict inquiry here overpassed, he is led into a further digression and gives in a paragraph or two the principle of a whole theory of æsthetic in declaring that the delight which the mind of a man, as compared with that of the brute, or again the trained, as compared with the untrained, takes in these "harmonious airs" is only explicable on the supposition on the one hand of the pre-existence in nature of something akin to itself, "some footsteps and resemblances of itself," on the other of "anticipations" in the mind "gratefully closing" with these resemblances. "For which cause the ancients," he concludes, "made Pan, that is nature, to play upon a harp; but sense which only passively receives particular outward objects doth here like the brute hear nothing but mere noise and sound and clatter but no music or harmony at all; having no active principle and anticipation within itself to comprehend it by, and correspond or vitally sympathise with it; whereas the mind of a rational and intellectual being will be ravished and enthusiastically transported in the contemplation of it, and of its own accordance to this pipe of Pan, nature's intellectual music and harmony."[1]

Kant's *Critique of Judgment*. We have of course nothing approaching the range of thought in Kant, but we have also none of the entangling ambiguities of a theory which, while insisting that the only concepts by which we can make organic nature intelligible to ourselves are those of mechanism, yet admits that living organisms inevitably carry us beyond all merely mechanical principles of explanation.

[1] *Op. cit.*, iii, p. 600.

In connexion with such passages we naturally think of Coleridge's view of Nature, and the theory of art which he based upon it. What must always seem strange is that he should have had to go to Schelling for a doctrine that was staring him in the face in his own Cambridge predecessors. "The judgment that men have," wrote Cudworth continuing the thought of the present passage, "of pulchritude and deformity is not merely artificial from institution or instruction or of taught things but such as springs originally from nature itself."

Returning to the theory of knowledge, Cudworth has hitherto been dealing with complex structures wherein the mind in his own words "comprehends by something of its own that is native and domestic to it that which is passively perceived by the senses," and so combines objects into wholes by an "anticipatory judgment" upon them: "displaying itself gradually after this manner".[1] He has spoken of sense as "passively receiving particular outward objects". He now carries the argument a step further, in going on to show that there can be no knowledge of individual objects of any kind, except on the assumption of the activity of a unifying intelligence. Taking the instance of a white triangular surface, he shows that to sense alone there is merely "the appearance of an individual thing, without any distinctions, concretely and confusedly together". Before it can be really anything to us, the mind has to "analyse and resolve this concrete *totum* and take notice of several distinct intellectual objects in it," *e.g.*, whiteness and triangularity. These by a further act of judgment it refers to a common substance or corporeal substance. Herewith, inasmuch as all these are universals and may be considered apart from "individuating circumstances," the mind may be said to "bid adieu to sense and singularity," but only to return to them "that so from thence with a descending view it may comprehend under the universals those individuals that now affect the sense". Finally, bound up with the whole process, there is the judgment of actual external existence, without which it would remain merely "a notion or objective[2] cogitation". At the beginning of the passage he speaks of the object being given to sense "as existing without it," but the later explicit statement that objectivity (in our sense) is itself a function of judgment seems to put his meaning beyond doubt.

In the whole account there is doubtless much that is metaphorical and from the point of view of modern psychology mythical—as when he speaks of the process he is describing as one "whereby the mind first reflecting upon itself and its own ideas, virtually contained in its own uniform cognoscitive power, and thence descending downwards comprehends individual things under them". In this last phrase, moreover, there still survives too much of the idea of the concept as a mere class notion instead of the unifying scheme with which he has already identified it (too much of the "abstract" in-

[1] Pp. 603 and 609. "If there were no inward anticipations the spectator would not judge at all but only suffer." The active element is essentially *judgment*.

[2] In the terminology of the time = our "subjective".

stead of the "concrete" universal, as we might say). But such mythologising is perhaps an incident in any attempt to draw out the process, as in the slowing down of movements in a cinematograph, while the other is only the survival in language of an idea of the universal which his own account has virtually superseded. In any case the general sense is clear and the whole passage[1] is significant as the first statement in British philosophy of the necessary implication in the apprehension even of the simplest objects, as individual existences, of an element of judgment without which we cannot be said even to perceive them: that in fact, as he puts it in conclusion, "knowledge doth not begin in individuals, but end in them".

In the passage which follows he goes on to deal with secondary qualities like colour and sound, emphasising the difficulty of explaining them on any theory which treats sense as merely passive, and defining them in the end as "a species of cogitation or an half-awakened perception". Passing this over, we have in the last part of this section what again must rank as perhaps the first clear statement of the constructive function of thought in mathematical concepts and propositions. In the proof that apart from "the actual strength and vigour of the intellect itself, comprehending its own intelligible ideas" there could be neither mathematical objects (triangle, circle, pyramid, cube, or sphere) nor mathematical truth, it is noteworthy that he recalls the reader not to the semi-mythological treatment in Plato's *Meno* but to the classical statement in Aristotle's *Posterior Analytics:* "Since these demonstrations are of an universal, it is plain that there is no knowledge of the universal theorems of geometry by sense. For it is manifest that, if we could perceive by sense that the three angles of a triangle were equal to two right angles, yet should we not rest satisfied with this, as having therefore a sufficient knowledge of it (as some say) but would seek further after a demonstration hereof: sense reaching only to singulars, but knowledge to universals."[2]

To sum up Cudworth's doctrine of knowledge: while essentially Platonic in insisting on the presence of universals in all knowledge, he sees the futility of mediæval discussions as to their separate existence on the one hand, of facile appeals to innate ideas on the other. His argument throughout is an appeal to experience, none the less so because he sees that for any true account of what experience means he has to go beyond contemporary empiricism. That his teaching was lost on his

[1] P. 603 foll. [2] P. 619.

immediate successors and was only recovered after long wanderings in the mazes of Locke's "new way of ideas" is doubtless partly to be explained as due to the ponderous framework of learning in which it was encased; but it also shows that philosophies like individuals may be born out of due season. The uncriticised empirical point of view was too congenial to the spirit of the age to be lightly set aside. It had to work itself out to its own conclusions and exhibit its own inherent contradictions, before men could be ready to go back upon its assumptions, and submit them to a thorough-going examination. But merit belongs none the less to those who, like Cudworth, anticipated by a century the general result of such a criticism.

(To be continued.)

III.—CONCERNING UNIVERSALS.

By R. F. A. Hoernlé.

1. In various passages of my *Studies in Contemporary Metaphysics*, published in 1920, a certain view about universals is briefly sketched, with a promise to give a fuller explanation in a further volume of *Studies* then projected. During the intervening years, in response to demands and opportunities which I could not anticipate in 1920, my literary plans have changed, and most of the materials gathered for that further volume have been, and will be, absorbed into other books. The problem of universals, however, lends itself to separate treatment. Hence, I venture to offer the following paper by way of fulfilling my promise, so far as it is now possible to fulfil it.

Moreover, there is a further reason for dealing with the topic of universals. During the past five or six years, a number of English and American thinkers have made contributions to the discussion of the nature of universals and their relation to particulars. In England, the interest in this topic, stirred up in 1911 by Mr. Bertrand Russell in his Presidential Address to the Aristotelian Society on "The Relations of Universals and Particulars," has revived after the interruption of the War. The work of Prof. E. Husserl, in his *Logische Untersuchungen* and in the various volumes of the *Jahrbuch für Phænomenologie*, has begun to exercise its influence on a number of thinkers, both in England and in the United States of America. Mr. George Santayana has given us his doctrine of "essences," most recently in his *Scepticism and Animal Faith*, and a number of "Critical Realists" support, in their several ways, the same general type of theory. Prof. A. N. Whitehead's highly original theory of "events" and "objects" cuts across all other treatments of the topic, raising in its agreements and differences tantalising problems of comparison. Prof. G. F. Stout, in his Hertz Lecture to the British Academy on "The Nature of Universals and Propositions," has put forward a theory of the universal as the "distributive unity of particulars," which

has been met with vigorous criticism by Dr. G. E. Moore and others.

This catalogue is far from being exhaustive, for every recent writer, either on Metaphysics, like the late Prof. J. McT. E. McTaggart in his *The Nature of Existence*, or on Logic, like Mr. W. E. Johnson in the three volumes of his *Logic*, has had something to say on universals. Any student of philosophy who wished to take stock of how the problem of universals stands in present-day discussion, at least so far as that discussion is carried on by thinkers using the English language, would have to pay attention to the thinkers and theories above enumerated.

The purpose of the present essay, however, is one at once different from, and less ambitious than, a complete survey of this field. What I propose to do is to develop a line of thought about universals which is, so far as I can see, not represented in present-day discussions at all. I shall try to present this line of thought with a minimum of polemical reference to the problems and terms of other contemporary discussions. For my chief purpose is, in the first instance, to develop it as fully as I can, so that its nature and importance may be estimated. I want to remind students of sides of the problem of universals and particulars of which they find hardly any hint in contemporary philosophical literature. Yet, they are sides which we dare not neglect if we desire a synoptic treatment of the problem as a whole. It is as a contribution of materials for such a synoptic treatment, that I offer the following argument.

2. My most convenient starting-point is the same from which, explicitly or implicitly, most other discussions start, *viz.*, the "general name," or "class-name," of the *Logic* books, with its two kinds of meaning, "extension" (or "denotation") and "intension" (or "connotation"). The general name, it is usually said, "applies in the same sense to many objects". Let "man" be our example of a general name, then all the objects in the world, past, present, and future, of each of which we can say, "this is a man," will be the many objects to which, in the words of the formula, "man," as a general name, "applies in the same sense". We will leave aside here the special difficulties which are raised for this formula by classes which have only one member, or even no members at all. Though these difficulties have received attention especially from the mathematical logicians, far more commonly the interest of recent discussions has been in two other directions. Following the one direction, the intension, as "universal," has been distinguished—one is tempted to say

"divorced"—from the extension, as "particular," thus leading to the question, whether there is a fundamental division of objects into two classes, particulars and universals. One basis for such a division has been sought in the supposedly different relation of particulars and universals to human cognition: particulars are "perceived," universals are "conceived". Another basis has been sought in relations to space and time: a particular exists in space and time, but cannot be in two places at once, a universal is in itself indifferent to space and time, and independent of them, but, as appearing in (realised in, embodied in) many particulars, it can be in several places at once. A third basis has been sought in different modes of being: particulars "exist," universals "subsist." Finally, a fourth attempt at defining the difference has taken its clue from the analysis of the categorical proposition into subject and predicate (the latter term being understood to include both qualities and relations), and has declared particulars to be entities which can only be subjects of predicates, or terms of relations, but never themselves predicates or relations, whereas universals are entities which can only be either qualities or relations.

This fourth attempt, taken by itself, is at the same time identical with the second of the two directions taken, as I said just now, by recent philosophical discussion of universals. It leads in its developments, as is obvious, into questions of the correct analysis of propositions, of the function of symbols, of the relation of thought to immediate experience, of the relation of substance to attribute, of the category of thing-quality, of the nature of relations, and what not. All these questions, though they can, perhaps, be distinguished, can hardly be separated in the end. Hence it has been a common experience, though one which has not always been reflected on, that a thinker who has begun with some *prima facie* view of the correct answer to one of these questions, has been compelled, as the other questions opened up before him, to have recourse to all sorts of ingenious devices, in order to maintain his original position intact against the pull of these questions in a very different direction. However, I have mentioned these different paths of enquiry only in order to put them aside for the present, and to make it quite clear that the path which I shall try to follow is other than any of these.

I go back, then, to the initial formula: A general name "applies in the same sense to many objects". Certainly, in understanding and accepting this formula as the starting-point of our discussion, we are taking it for granted that "the

world is full of a number of things"; that these things fall into classes, or are of various kinds; that it depends on the "qualities," or "nature," of a thing what classes or kinds it belongs to; that the possession of these qualities or nature, and, therefore, the membership of a class or kind, can be predicated of a thing in a judgment or proposition. In short, to "apply" a general name to an object is to judge that the object is a member of the class which forms the "extension" of the name, because it has the qualities which form the "intension" of the name. The qualities, of course, must have been attended to, and distinguished from, other qualities, before they could receive a name to themselves. But, thereafter, the name may be given, or "applied," to any object in which these qualities are found or recognised. The intension, as it is said, determines the extension. Is a thing to be called this or that? Is it to be put into this class or that? Is, *e.g.*, an act of killing to be called murder, or culpable homicide, or justifiable self-defence? The answer will depend on what we mean by "murder," etc.; that is to say, it will depend on the "intension" of these terms, as defined. The definition of murder, in stating "what murder is," lays down the conditions, so to speak, which an act of killing must fulfil if the name "murder" is to be applicable to it.

All this is commonplace, of course, but nonetheless it is useful to rehearse even elementary commonplaces, in order to make clear, beyond all danger of confusion, the total *context* in which attention is to be focussed on a special problem.

This problem lies in the words "in the same sense". If a general name is applicable to many objects "in the same sense," this would, *prima facie*, mean that the same qualities are to be found in every one of the objects to which the name can be given. Yes, but in what sense the "same"? Does it require that every member of a class is an exact replica of every other? That they are "exactly similar"? That, like the "identical twins" of popular parlance, they are indiscernible but for what is called their "numerical difference"? That, in other words, in respect of their class-character there is no difference between them by which any one might be distinguished from any other?

It would be possible, no doubt, to set up as a logical ideal this concept of a class, the members of which should be indistinguishable, one from the other, except for their numerical difference. It would be possible, then, to grade actual classes according as their members were, or were not, "as like as two peas". The class of newly-minted pennies might serve as an instance from practical life, or, with theoretically even greater

perfection, in mathematics any number defined as the class of all classes which are similar to a given class. On the other hand, the class of all human beings, or its countless sub-classes, *e.g.*, all schoolboys, or all spinsters, or all politicians, would be by this standard vastly imperfect, by reason of the endless differences between their members.

On this ideal of exact similarity two remarks may be made which will carry the argument forward. The first is that it plays no part in the thinking of the Natural Sciences, where the discriminating of classes and the working out of the inter-relations of classes in classificatory systems form so essential a part of our knowledge of Nature. No Natural Science expects the members of its classes, *e.g.*, the specimens of a species of plant or animal, to be all exactly alike, and to exhibit only numerical difference, nor does it regard this fact as a logical imperfection. Indeed, it might be argued that where the inherent individuality of the members of a class is at a minimum, there also the concept of class becomes most precariously applicable, just because the differences between the members are either accidental or arbitrary. Is a chemical element a class? And, if so, what are its members? Assuming that the quantity of a chemical element in the universe is, if not measurable, yet at any rate, limited, and imagining it as chemically pure, are we to conceive it as a class which has at any moment as many members as there are separate amounts of the element in different places at that moment? Or are we to think of it as a class with only one member because, conceivably, all there is of that element might be assembled into a single lump? Clearly, the instances of an element, which would be the members of the class, are either arbitrary (amounts taken for human purposes) or accidental (amounts found occurring in Nature). Moreover, additional members can, at will, be manufactured by sub-dividing any given amount, just as the number can be reduced by lumping different amounts together. By contrast, the members of a class in Botany or Zoology have each an individuality of its own, which tempts one to say that it is only in the animal and vegetable kingdoms (including, of course, man and all his works), that the class comes into its own. The objects in Nature which lend themselves most successfully to classification—so successfully that we ought rather to say that they *demand* classification by their very nature, *i.e.*, because they actually exist as classes—are to be found in organic, not in inorganic, Nature. Yet in the study of organic Nature classes that have the above proposed character of perfection, *viz.*, exact similarity and merely numerical differentiation of

their members, are neither found, nor required. This reflexion does not, I think, prove the ideal under discussion to be theoretically false. But it does show that there is an alternative preference open for a Logic which, finding that the facts range from classes with members exactly similar at one pole, to classes with members differing as individuals and not merely as numerical units at the other pole, prefers to take the latter type of class as its standard because its field is the concrete.

I used above, speaking of plants and animals, the phrase they "exist as classes". The defence of this phrase against possible criticism brings me to my second remark. Classes, it may be said, are fictions of the classifying, literally class-*making*, mind. Nature has only particulars or individuals. It is the human mind, the scientific mind, which collects and groups the particulars into classes. The answer to this argument depends on whether, for science at any rate, we accept the distinction between "essence" and "accident," and the correlative distinction between a "theoretical" and a "non-theoretical" (often called "practical") interest in things. No doubt, if pressed, these distinctions break down and give rise to dialectics. But that is no reason for not using them as far as they will carry us. And here, at any rate, they enable us to insist that, so far as the interest of theory (or knowledge) for its own sake is an interest in the essential nature of things for their own sakes, classes are not made but found. The groupings are determined by the essential natures of the objects grouped, and by their affinities according to their essential natures. A classificatory system exhibits, in Mill's language, a "connexion of attributes": it embodies on a larger scale the principle that "intension determines extension". The particular, or individual, has a place in one of the pigeon-holes of the system, because the nature of the particular has just these determinate relations to the natures of other particulars. This argument becomes stronger still if we remind ourselves here of the well-known point that a perfect classificatory system is, logically, of the type of a complete disjunction, in which the alternatives are exhaustive and mutually exclusive, and in which successive levels, or stages, are more specific determinations of the general character, or nature, on which the system is based. If, now, we consider, in the light of this concept of a classificatory system, the purely "numerical difference" which, on the ideal under discussion, will alone separate the "exactly similar" members of a class, it becomes clear that two members of a class, A_1 and A_2, if they are

absolutely indistinguishable in respect of their class-character, can be "numerically" distinguishable only in virtue of some character which has nothing to do with their class-character at all, *e.g.*, occupying different positions in space, or being marked by ribbons of different colours, like twins. Their numerical difference, in short, will not consist in a differentiation of their class-character, but be "external" to it.

This brings us face to face, at last, with the crux of our problem. To say that a general name is applicable "in the same sense" to many objects, meant, as we saw, that these many objects each possess the same quality or character. But, we have just seen reason to reject the view that this sameness of character implies that the many objects need be exactly alike, and therefore indistinguishable in respect of the same character, and distinguishable only in respect of some other quality, not connected with their class-character. Can we, must we, then—this is our problem—understand the phrase "in the same sense" so as to allow for, nay include, a range of differences?

Now, if we look at the facts, *i.e.*, at the objects covered by any classificatory system, especially in the Biological Sciences (the sciences of organic Nature), it is obvious at a glance that for two specimens of a species, even, say, for two dogs of the same sex in the same litter, to be indistinguishable in respect of the qualities which constitute their species- and genus-characters, is the rare exception, not the rule. Individual specimens differ from each other, very largely, if not wholly, by differences which are, in fact, particular modifications of their species- and genus-characters. Following the prevailing usage, which calls a character "universal" and the instances in which it is realised "particulars," we may express the facts by saying that *a universal is realised "more or less" in its particulars.*[1] Furthermore, it seems to me that there are two ways in which a universal may be realised "more or less" in its particulars.

Firstly, the universal may be a simple quality ("simple," at any rate, for our perception). In that case, I propose to say that it may be realised in its particulars in varying *degrees.*

Secondly, the universal may be a compound, or complex, of qualities more or less closely inter-related and mutually

[1] I am not using "realised," here, as a technical term, and to raise technical problems here about the meaning of "realisation," or about the subject-predicate relation, or the thing-quality relation, would be to miss my point. I am concerned merely to draw attention to certain facts with which we are all familiar, without prejudice to different theories about these facts.

dependent. The more complicated variations in the realisation of such a universal in its particulars I propose to express by saying that the universal is realised in its particulars in varying *modes*.

There is not, I think, any profound difference in principle between these two kinds of universals, but the distinction is none the less convenient for purposes of exposition. A few examples will illustrate it :—

That qualities may differ in degree is, of course, a familiar fact. Now, whenever a quality is made the basis of classification, the "many objects" classed together as possessing that quality will be found to exhibit it with differences of degree, varying from instance to instance. This occurs equally in natural objects and in artefacts. The flowers of a certain kind of plant have all the "same" colour, but compare single blooms with each other, and the "same" colour appears in each with slight differences of shade or nuance. The occurrence of instances "exactly alike" is the exception rather than the rule, and, if we choose, we can always suppose that with acuter powers of discrimination a difference would even here be found. But it is enough for my argument if it is conceded that "exact similarity" is the exception, not the rule. We might suppose that artefacts would exhibit less variation in degree. And, it is certainly true that, if we take great care, *e.g.*, in colour-mixture, we can, if not eliminate variation completely, at least greatly restrict its range. Yet even here variations occur, and may become important, as every stamp-collector knows. The stamps of a given issue have all the "same" colour, yet the scientific collector is not satisfied until his collection contains items illustrating the range of shades of that "same" colour found in that issue. Further, this variability of the universal in its instances is far from being merely a curiosity, without intrinsic practical or theoretical importance. On the contrary, if there is any truth in the traditional view of the rôle played in evolution by "accidental variations," any one of these oscillations of quality around the average, or norm, may be the starting-point of the development of a new variety, or even species. The efforts of the breeder of plants or animals certainly begin with the selection of instances relatively free from a quality to be "bred out," or possessing, in more than usual degree, a quality to be "bred in". Thus, if we wish to be true to the facts, the "same sense" in which the name of a quality is predicated of all the members of a class, must certainly be elastic enough to cover the variations of degree in which that same quality is found in the several members. If "sameness"

here is to mean "exact similarity," and to exclude all "differences" of degree, then certainly the classifications of the Natural Sciences are strictly unscientific, or, at least, illogical. But we do not need to choose this alternative, so long as there is open to us the other alternative of framing our logical ideals on the actual procedure of scientific thinking, instead of setting up standards which the sciences do not acknowledge because the facts reject them.

So much for differences of degree; now, for some illustrations of differences of *mode*. Let us take "rationality" as the distinctive characteristic of man. It is irrelevant to the point of our argument whether, as a matter of fact, rationality, or the possession of reason, is to be found only in man, or also in other animals. If we take it abstractly as a simple quality, it illustrates, of course, the principle of degrees: one man is more rational or reasonable than another; the same man may be more rational at one time of his life than at another. Yet, in spite of these variations, men are still "men," and still "rational". The "sameness of sense" may be strained by extreme fluctuations, but even when we call a man, or his actions, "irrational" and "unreasonable," we do so only because he has fallen away from his true nature. We do not mean that he has ceased to be a man, and that he should be classed with some non-human species of animals. At any rate, such reclassifications are indulged in only by way of abuse; they have no place either in the language of Science or in that of Ethics. In other words, if, by way of criticism, we call "unreasonable" a being whose nature it is to be "reasonable," we are neither saying what is false in fact, nor contradicting ourselves flagrantly, but we are expressing an extreme fluctuation in the quality of reasonableness — a diminution of it to the point of disappearance, as when we say that someone is "bereft of his reason," or has "lost his head".

However, with all this, we have not yet come to differences of *mode*. These we can illustrate, still taking rationality as our example, if we interpret the term, not abstractly as meaning a quality, but concretely as meaning the habitual performance of, or participation in, that complex of activities and interests which constitutes what Santayana has called "the life of reason". After all, when we look for the fundamental differences between man and non-human animals, we shall not find them in that human beings "reason," whereas non-human animals do not, but in that human beings have created in art, science, religion, philosophy, in their forms of government and social organisation, in their discoveries and inventions and the

industries and commerce based on them, a complex civilisation and culture to which, as a whole, we can find no parallel or analogon in the animal kingdom outside *homo sapiens*.

Now, if we define "being rational" as participating in these activities, it is obvious that one man will differ from another, not only in degree, but also in mode. That is to say, one man will specialise in one kind of activity, another in another, *e.g.*, artist, scientist, politician, priest, will each, in his own way, carry on the life of reason. Not that all these ways are necessarily incompatible, in principle, with each other, but there are practical limitations to the extent to which they can be successfully combined even by those who have aptitudes for more than one. The fact is that there is both differentiation of aptitude and division of labour, and either, or both together, give us differences of mode. A musical composer's *mode* of being rational will be different from a poet's or a painter's, and the mode of all three of these, as artists, will be different from that of a mathematician, a geologist, a biologist. Yet, the work of all these, on the view here taken, consists of rational activities, and in each kind of characteristically human work we have, therefore, a characteristic mode of being rational.

Within each mode there will be differences of degree: one musician will be more or less of a musician than another; one scientist's thinking will be more or less scientific than another's. But, as between mode and mode there is not, in general, any such comparison possible. It would be groundless to assert, *e.g.*, that art is more or less rational than science. Yet all these modes of activities make up the "life of reason" in the concrete—the historical reality of human civilisation.

Of course, if we conceive rationality in this way, as meaning, concretely, the whole net-work of activities which constitute human civilisation, and each of these "at its best," or developed to its fullest degree, it is obvious at once that this type of universal, even less than the previous one, is realised in its fulness in any one of its instances or members. Indeed, it is possible here to raise the question, what are the members of the class determined by this universal? Is the human race, as a whole, the subject of which the life of reason, as concretely realised in the activities constituting civilisation, is to be predicated—thus forming a class with one member? Or are we to distinguish civilisations according to nation, or race, or perhaps even merely according to geological epoch (*e.g.*, human civilisation in the quaternary epoch)? Or, lastly, are we to take as our class not civilisations, but civilised men, and the individual human being as the instance in whom the activities,

in which being civilised consists, are present in varying modes, and each mode in varying degrees? Fortunately, for our present argument it does not matter which of these alternatives we adopt. For, on any view, the whole of civilisation is not realised, as a whole, in anyone or all its instances. No single man, even in a "complete life" (as Aristotle might have said), no single national, or racial, or epochal type of civilisation, not even the human race as a biological unit, realises civilisation in all its modes or in the fulness of each mode at any one time. What then becomes of "in the same sense"? If, striving for sameness to the exclusion of difference, we cut down our concept of being rational (in the concrete sense of our present definition) to that range of degree and mode which we can predicate "in the same sense" of the primitive savage and the cultured European, we leave out the bulk of what constitutes rationality. If, on the other hand, we construct as full a concept as we can, we pass beyond anything which is anywhere realised in actual fact.

Is their any escape from this choice between an empty minimum and an unrealised and unrealisable maximum? The only way out would seem to be that we should give up the prejudice in favour of conceiving universals with a hard-and-fast sameness, which would forbid, not only the recognition of differences of degree and mode in the instances of their realisation, but also any evolution, any history of development from lesser to fuller realisation. If the use of general names "in the same sense" of many objects forbids all this, it is a useless use, and the wise man will adopt a use which enables him to do justice to the facts. Flexibility is a virtue of thinking, no less than fixity.

Or, to put this differently, rationality is an example of a universal which is realised in its instances, not as a standing possession, but rather as a variable achievement. Being reasonable is a task, but a task laid upon human beings by their very nature as human. Hence, it is at once something which we are, which we strive to be, and which we ought to be. This is a point to be further elaborated below (sect. 4). Here it is mentioned only in order to support from a fresh angle the thesis that we shall do well to reject any interpretation of the demand for self-identity, contained in the phrase "in the same sense," which disables us from recognising universals as variable in the degree and mode of their realisation. If, on the contrary, we do conceive universals in this way as "identities in differences," we can not only expand our classes so as to include instances belonging to different levels of an evolutionary series, but we can go on to

specify the conditions under which a given mode and degree of the universal is realised. And, from this study of conditions we may perchance learn further how to achieve a yet fuller realisation of the universal than any with which we are at present acquainted. Surely, it is no mean thing so to conceive universals as realised in particulars that we do justice at once to the classificatory, the evolutionary, the causal, and the purposive points of view. Any theory of the universal which does not, at least, attempt to provide such a synthesis, or which does not furnish a basis for these four ways in which universals determine our thinking, can hardly claim to touch the centre either of knowledge or of reality.

Some of the advantages of this way of looking upon universals may be emphasised even at the expense of a certain amount of repetition.

(*a*) If once we admit degrees into our concept of the realisation of a universal in instances, the possibility of measurement suggests itself. Not many qualities can be measured, directly or indirectly, but wherever measurement is possible, there we can give precision to the relation between variations in degree of quality and variations in the conditions under which the quality occurs, or in response to which it is displayed. But, with or without measurement, degrees invite the application of that most fruitful of all inductive methods—the method of concomitant variations.

(*b*) Again, where the common nature by which objects are classified together is complex and permits of analysis into its elements, it may happen that an object has all the elements but one. Its dominant nature, therefore, points to its inclusion in the class, and certainly forbids its inclusion in any other class. Yet its deficiency in one quality may seem to go against the definition and thus compel its exclusion. Here the concept of degrees varying with varying conditions opens a way out. For, the disappearance, or non-appearance, of a quality may be regarded as the extreme lower limit of variation. In other words, we may assign the quality to the object, but put down its value as zero. An example from Prof. R. M. MacIver's analysis of the "foundations" of nationality may serve to illustrate the method.

Prof. MacIver enumerates the following "chief qualities or interests in the recognition of which, either as common or as exclusively common, the foundations of nationality must be sought:—(1) Race; (2) Language; (3) Territory, as occupied effectively (*cf.* (7*c*) below); (4) Economic interests; (5) Culture, *i.e.*, characteristic standards and modes of life; (6) Religion; (7) Political unity; (7*a*) Political Tradition; (7*b*) Political Subjection; (7*c*) Political Domination. Ap-

plying these tests to a number of the most prominent states and peoples, he gets the following result:—

	(1).	(2).	(3).	(4).	(5).	(6).	(7).	(7*a*).	(7*b*).	(7*c*).	Pure Determinants.
British	O	X	X	X	X	O	X	I	O	I	(7*a*), (7*c*).
U.S.A.	O	X	X+	X	X	O	X	O	O	O	none.
French	X	X	X+	X	X+	O	O	I	O	I	(7*a*), (7*c*).
Italians	X	X	X+	X	X	O	O	O	O	O	none certain.
Russians	X	I	X	X	X+	O	X	I	O	I	(2), (7*a*), (7*c*).
Germans	X	X	X+	X	X+	O	X	O	O	I	(7*c*).
Jews	I	O	O	O	X	I	O	I?	I	O	(1), (6), (7*b*).
Japanese	I	I	I	X	X	O	I	I	O	?	(1), (2), (3), (7), (7*c*).
Spaniards	I	X	I	X	X	X	I	I	O	O	(1), (3), (7), (7*a*).
Swiss	O	O	I	X	O	O	I	I	O	O	(3), (7), (7*a*).
Poles	I	I	I	X	X	X	O	I	I	O	(1), (2), (3), (7*a*), (7*b*).
Czechs	I	I	I	I	X	O	O	O	I	O	(1), (2), (3), (4), (7*b*).
Magyars	I	I	I	X	X	O	X	I	O	I	(1) (2), (3), (7*a*), (7*c*).

Explanation of Symbols: I = factor *recognised* as exclusively common; X = factor recognised as common but not exclusive; O = factor in respect of which there is no community co-extensive with nationality; X+ = factor nearly approaching I. The last column recapitulates the "pure determinants" (I).[1]

[1] This table is quoted from Prof. MacIver's article on "Foundations of Nationality," in the *Sociological Review*, July, 1915. Many of the details, of course, would have to be changed, if the Table were to be re-drawn in accordance with the results of the Peace Treaties of 1919-20.

Whether all Prof. MacIver's details are correct, is irrelevant to my argument. What is relevant is only the method, which not only recognises the principle of degrees (X+), but acknowledges factors in some nationalities which are non-existent (0) in others.

What saves the procedure from the charge of bare-faced fiction-mongering is precisely that it enables us to apply, or extend, a classification to objects in which a character is absent by atrophy, or because special conditions have led to its repression, or, at least, have given no opportunity for it to be evoked or developed. Once more, an immense gain in elasticity of thought, enabling us to follow the track of identity in difference where a rigid insistence on abstract "sameness" would erect an insuperable barrier.

(*c*) Thirdly, we need the concept of the universal here proposed to deal with objects which, whilst exhibiting a common character (and "common," here, means "same"), yet differ among themselves in that some exhibit this character in a "simple" or "rudimentary," others in a "complex" or "highly developed," form. Such objects may, of course, form an actual evolutionary series, but they need not do so. And whether they do so or not, the whole grouping of them together, the whole treating of them as instances of the "same," must seem to be logically illegitimate, unless we credit the "same" with differentiating itself under different conditions.

3. So far, the argument has treated the universal in the main as simply a class character, common to, or identical in, many objects whose membership of the class is thereby determined.

We have next to point out that this is not the only function of the universal, either in theory or in practice. The universal is not only a class-character, it is also a standard or norm. Its function is not only classificatory, but also normative. Recognition of the universal in the particular enables us to judge, not only that the particular is of such and such a kind, but also that it is good or bad of its kind.

This function belongs to the universal equally whichever of the two chief senses of "norm" we adopt. We may mean by "norm" the "best," the ideal standard of perfection for that kind of thing. Or we may mean by it the "average"—the normal as determined by the majority of instances. In either case, it supplies a measure of excellence. We may judge a thing to be either better, or worse, or equal to the average of its kind. And, again, we may judge it to be a perfect specimen or example of its kind—as good as it is possible for that kind of thing to be. Thus, the universal

makes possible, not only judgments of fact, purely descriptive and classifying, but judgments of value as well.

The term "value" may be challenged on the ground that value is meaningless except in relation to desire. And it certainly seems far-fetched, especially in the context of Natural Science, to attribute to animals and plants, let alone to inanimate objects, a conscious desire for, or even merely an unconscious nisus towards, either the perfection of their own kind (an excellence above the average), or conformity to the average of their kind. However, not only do I not know any better word to use, but I am also inclined to challenge the whole theory which would make value relative to desire, so that "good" can mean only "what is desired," or, at most, what is "such as to be desired." This is not the place to argue this point on its merits, and I must, therefore, be content to ask for permission to use the term "value" without any reference to desire. To mark this independence of desire, I shall speak of "intrinsic" (or "objective" value), meaning that terms like good and bad, better and worse, perfect and imperfect, can be used of things significantly, with reference to a standard supplied by the nature itself of the things in question.

Now, the recognition of this intrinsic standard, and the making of comparative judgments of excellence, is possible only if the instances of a certain kind (or "nature") are not all exactly alike, but differ from each other in degree and mode precisely in the way described in the preceding section. If objects which are all of the same kind yet differ among themselves in the way in which their common character is realised in them severally, we have sufficient grounds not merely for judgments of more or less, but for judgments of better or worse, more perfect or less perfect.

It is not relevant to my purpose to investigate, at this point, what Kant would call the "possibility" of such judgments. That we *do* so judge, will be, I think, conceded. That we have a *right* so to judge, may be disputed. I am here going to assume that we have a right to do what we are doing, and that the same processes of thought which, by comparison and discrimination, enable us to recognise divers particulars as having the same character and being of the same kind, enable us also to discern where that character is most fully and perfectly realised, and to do this by a standard intrinsic to the character itself. Of course, such judgments are as liable to error as are purely descriptive and classificatory judgments. And, equally of course, do we learn in this matter by experience, if only because a limited and non-representative

collection of instances is a poor guide to the discrimination of the intrinsic standard. There are contemporary thinkers who declare our right to generalise by inductive reasoning—and classifying particular objects as being of the same kind is one kind of generalisation—to be logically questionable. No doubt, these same thinkers will challenge even more vigorously our right to elicit from the same data which yield classificatory generalisations, a standard by which the degree of intrinsic excellence of these same data can be judged. To me, on the contrary, both kinds of thinking and reasoning seem to stand or fall—seem, in fact, to stand—together. And, without pursuing the *quaestio juris* into polemical by-paths, I am content to appeal to the fact that such judgments of intrinsic value are regularly employed even in the most severely scientific thinking. This is true, at any rate, of the Biological Sciences, in which the expert's distinction between a good and a bad, a better and a worse, specimen of its kind is a familiar thing. The selective judgment of the breeder of plants and animals is but an extension of the same principle, though here a definite reference to human purpose, utilitarian or æsthetic, may enter in.

At any rate, the points of our argument so far have been two. (*a*) In section (2), it has been argued that if it were really a logical pre-requisite of classification that every member of a class should possess the "same" character without differences of degree or mode, we should not be able to classify at all as we do, especially in the Biological Sciences. And (*b*), in the present section (3), it has been argued that the very differentiation of the "same" character in its instances enables us to rank them by an intrinsic standard of excellence —the standard of being, so to speak, "true" to the character of their kind. This standard reveals itself to the discerning mind through the very acts of comparing and distinguishing by which the lines between classes are traced.

4. But, we can now carry the argument a step further still.

Above, we said that to ascribe to the individual object, or to Nature as a whole, a desire for perfection would be fanciful. We may permit such language to poetic licence; we banish it from the rigorous speech of science. We refuse to say that every living thing, or Nature in every living thing, aims at the utmost perfection which, under the given conditions, is possible for that kind of thing. Yet, if we compare the dwarfed and stunted pine near the tree line on the upper slopes of the mountain with its majestic brother in the forest of the valley below, we are not false to the spirit of science, if we correlate the perfect growth of the one with the favour-

able conditions of the valley, and the thwarted growth of the other with the handicap of unfavourable conditions on the heights. We can hardly avoid saying here that each living thing "does the best it can" under the conditions, even if we check ourselves from saying that it "seeks" to do the best it can.[1] But when we come to beings that are *conscious*, and above all to beings which are *self-conscious*, some, at any rate, of these scruples may be laid aside. And so our argument about universals enters upon a fresh stage when, to the factors which we have considered so far, we add now the *consciousness* of their own kind, of their own characteristic nature, which human beings, at least, possess.

With the facing of this fact our argument swings into familiar tracks and allows us to travel fast and far.

First, with consciousness comes knowledge. True, this is not yet "reflective" knowledge, distinguishing self and not-self, nor even, at the start, amounting to explicit judgment. And yet, the most rudimentary form of consciousness, however we conceive it—*e.g.*, a flux of sensations, peripheral, organic, kinæsthetic, shot through with pleasure and pain—is already an awareness in germ of self and world. Whatever language we use about this pre-linguistic stage of knowledge must, of course, be taken in a Pickwickian sense. For, taken literally, it imports meanings which are not yet there; it assumes distinctions as yet far from being made. But, if we are to speak, hypothetically, of these things at all, we can do so only by giving them, in anticipation, the character which it is their destiny to acquire in the course of evolution. In this sense, we can say that the earliest glimmerings of peripheral sensations constitute a rudimentary awareness of what concerns the creature for good or ill in its environment, the lesson of good or ill being taught at this stage by pleasure and pain. And, similarly, the earliest organic and kinæsthetic sensations are the creature's way of being aware of its own bodily condition and movement. The steps by which, from some such beginnings, the evolution of mind may be supposed to have travelled to man's articulate knowledge of self and world, we need not trace. Enough for our argument that we can, and do, not only distinguish the various kinds of things which make up our environment, but also that we know, more or less adequately, the kind of thing we are ourselves as a class, and, indeed, the kind of thing each of us is in himself as an individual.

[1] Spinoza's *conatus in suo esse perseverare* (*Ethics*, Part iii, Prop. 6) should be interpreted as an endeavour on the part of each thing to *realise its nature to the utmost* under the conditions of its existence.

Self-consciousness, in short, brings self-knowledge. Or, lest we be reminded that we know all too little about ourselves, both individually and as a race, and that much which passes for self-knowledge is really illusion and error about ourselves, let us rather say that self-consciousness brings *self-objectification*. We make, quite literally, "objects" of ourselves. We can, if we choose, study human nature and behaviour in ourselves and our fellows as we study the nature and behaviour of non-human kinds of animals and plants. We can identify our place in the object-world at large, and trace the manifold relations which indissolubly bind us to it, conditioned and conditioning. We can do for our own kind what we can do for all other kinds of objects; we can trace how the "same" nature differentiates itself in infinite variety of degree and mode in the members of the class *homo sapiens*. We can discriminate, too, between these differentiations, sorting the better from the worse, the more human (or the more truly human) from the less human. And so, here as everywhere, the universal functions at once as *fact* and as *ideal*—as "nature" or "character" actually embodied and realised, and yet also as a standard by which the degree of perfection of each realisation can be estimated, and which ever confronts the actual with an unrealised, or not-yet-realised, better.

Thus, human nature is what makes us men. But it is also a norm by which we can judge how far we succeed or fail in being men. We are self-conscious; therefore, self-knowing or, at least, self-objectifying; therefore *self-normative*. Knowing human nature in ourselves (or having at least some concept thereof), we also know (or have some concept of) the standard or norm intrinsic in human nature. A norm known, and known as the norm of our own nature, becomes an object of desire, of aspiration, of endeavour. We can, even if the rest of Nature cannot, aim at making ourselves more perfect than we are—more perfect as human beings. Human we are: humaner we must strive to become.

For, the norm, or ideal, of our own nature is not merely an object of theory, nor merely an object of desire: it imposes also an obligation, it defines a *duty*. What we are, that we may desire to become more perfectly: but, whether or no we desire this, we recognise that we ought to attempt it. The ideal may attract, but it certainly also binds and obliges. If it is an end sought, it is also a task to be shouldered with effort. And being the ideal of our own nature, it is always, in principle, both.

Familiar paradoxes, which yet are among the fundamental

verities of man's spiritual life, flow from this situation. The distinction between the "actual" self and the "ideal" self (in the sense of the "true" or "perfect" self, the self "at its best") is a traditional topic of philosophical dialectics. But the facts of normal human living, of daily experience, which lie behind the dialectics, are undeniable. The dialectical antitheses are no artificial figments of theory: they do but put into technical language the ambivalences and oscillations of human conduct and judgment. Only one who is a man can fail at being a man. For, to fail is to fall short of the intrinsic demand and standard involved in "being a man". Being a man, such a one is yet a "poor specimen of a man". And, in facing this double-edged fact, if, indeed, he does honestly face it, it is brought home to him at once that he wants to be, and that he ought to be, a better man than he is. So, again, only an artist can be a "bad" artist, only a doctor can be a "good" doctor. But what boots it to multiply examples? Throughout the whole range of human nature, whether we look to innate endowments or to acquired skill, knowledge, character, the principle holds good: what a man is, that he can be either better or worse. His nature is at once actual and ideal. And being "true" to it, or to himself, does not cease to be either an aspiration or a duty, for all that he may succeed in it more often than he fails. It is only a "man" who can be reproached with "being a beast": just as it is only a man who can be bidden to become "like unto God".

But I do not want to labour this point. Rather do I want to conclude this section by glancing once more at the controversy about objective value and value relative to desire, which was touched on above. If there is anything in the argument of this section, it follows that we must regard the values of human desire as derivative from the values intrinsic to human nature. We may, of course, *define* "good" as the object of desire, and "bad" as the object of aversion, but we cannot abolish facts by a fiat of definition. If we adopt this definition, we must find other words in which to state the facts. For, the facts are there for us to see, after the definition no less than before it. Perhaps we may put the matter thus: needs, wants, desires, are part of human nature. To begin with, we desire food, not because food is judged to be good, but because we are built that way. Indeed, our earliest desires (if this term is applicable at all at this early stage) involve no awareness of their "object," of what would satisfy them. The object is learnt later, by experience and recollection of satisfactions provided by those

who knew what we needed better than we did ourselves. In *this* context—and this insistence on *context* is an essential qualification—we may concede that "good" is relative to desire; that for a thing to be good means for it to be desired on the ground that it is known from previous experience of one's own, or inferred by analogy with the experience of others, to bring satisfaction. But desires, and their objects and satisfactions, may be considered also in *another*, and wider, context. As parts of human nature, they fall under the principle above elaborated, *viz.*, that human nature involves an intrinsic standard or ideal. To desire certain things, to seek certain satisfactions in certain ways, is to be human, is to realise human nature. But, for this very reason, the question applies: Is it to be rightly and truly human? Does this way of life realise human nature at its best? Thus, an objective standard of value can be brought to bear on desires and their objects, as on anything else in which a universal nature is realised in particular instances. The standard can be brought to bear, because it is itself but the universal nature in one of its aspects.

In short, human desires and human satisfactions, in their different degrees and modes (*cf.* sect. (2)), are some more, some less, human in the sense that some represent a higher level of human nature than others. Nor does the phrase "higher level" tell the whole story. For, in the first place, it is characteristic of the development of human nature to higher levels by self-objectification and self-judgment (self-criticism), to give rise to desires of a higher order, *i.e.*, to desires for, or aversions from, certain kinds of other desires. Such a desire of a higher order—a desire for a desire, so to speak—is possible only at the level of self-conscious reflexion where desires and their satisfactions can be compared and a choice, if need be, made between them. Usually we call such a desire of a higher order rather a "rational preference," or a "principle of conduct". But the terms do not matter so long as it is agreed that in such choices, or preferences, there is operative, in principle, an intrinsic standard of excellence, an ideal of human nature and of human life as a whole. Moreover, in the second place, such a preference, in proportion as it is an effective determinant of conduct and does not remain merely a pious aspiration, embodies itself in a habit of cultivating certain desires and their satisfactions, and of subordinating, nay even repressing, others. It thus acts as an *organising* principle in human conduct. We have, each of us, his own "economy of desires," his own system or hierarchy of interests, his own scale of values, in accordance with which

our lives are more or less consistently ordered. And, if the comparison, above, of desires as more or less human has still seemed strained to some, in spite of all previous argument, it may be easier for them to recognise and admit the principle when the comparison is between whole lives—types of lives—in respect of the order (economy) in each life of various kinds of desires and satisfactions. Here, surely, it cannot well be denied that not all human lives are equally ("in the same sense") human, and that some achieve a much higher level of humanity than others, and come nearer to what a human life can be at its best, and ought to be. Such judgments as these on human lives pervade our practice. Such judgments—this is the whole point of the argument—are justified in theory. And on what other ground can they be justified, or, at least, justified so successfully, as on the present theory of the function of universals as intrinsic, or objective, norms?

Morality, lastly, from this point of view, may be regarded as man's consciousness of the intrinsic ideal inherent in his nature (which term we must here expand to include his relations to his world), and as his effort to realise that ideal, to achieve, so to speak, the maximum of humanity. Moreover, the fact that morality has so often been construed under the antithetic concepts of "happiness" and "duty," becomes intelligible from our point of view when we recall that the ideal of our own nature at once exercises an attraction and imposes an obligation. These two sides of the ideal have often been divorced from, and opposed to, each other in theory, because they often conflict in life. But, in principle, they are compatible with, and indispensable to, each other. We might almost construct a Hegelian triad, and say that desire and duty are "moments" in the love of the ideal.

5. Mention of morality, however, suggests yet a further line of thought. For, the fact that morality is not a purely individual, but a social phenomenon, may serve to remind us of an important limitation which has characterised our whole point of view so far. From the moment when we began by investigating the sameness of sense in which a general term is applicable to many objects, we have been thinking of members of *classes*, not of members of *organised groups* or *wholes*.

In order to make my point as briefly as possible, I shall omit here from consideration all non-human groups or societies the adult members of which we may credit in varying degrees with leading self-conscious, self-knowing, self-normative lives, in the sense given to these terms in the preceding section.

The point of principle here to be made is one familiar from Plato's *Republic*, where its theoretical importance was, so far as we can tell, for the first time explicitly recognised. It is simply this that such differences of degree and mode as we have shown to exist among members of the same class, make possible that kind of *ordering* of these members in a social group which we call *organisation*. The differences of degree and mode in the way in which the common class-character is realised in the multitude of members, become positively significant when they are made the basis of differentiation of function within the structure and life of a society. True, we have no philosopher-kings charged with the task of ascertaining what every member of society is best fitted for, and of assigning him to that work. We leave the selection partly to the accident of opportunity, partly to the individual's judgment of his own abilities, partly to the conflict of his own interests and ambitions. But this does not affect the principle, which is, perhaps, most easily appreciated when stated in negative form. No whole of differentiated parts, no structure with organs specialised for their several functions, can be constructed out of parts each of which is exactly similar to every other. Such parts could only do exactly similar work in exactly similar ways. They could not co-operate with each other by contributing, each in its own way, to a common achievement.

It is unnecessary to labour a principle so familiar as this, though it was necessary to mention it for completeness of exposition. Only one minor point may be added. A class-character is, as such, indifferent to the number of instances ("extension") in which it is realised. Of course, the larger the number of instances, the greater the possible range of differences of degree and mode. But, to fix for the membership of natural classes either an upper or a lower numerical limit would be a futile undertaking, in the absence of any rational grounds for such a determination (unless we fix the minimum at one individual of each sex, for purposes of propagation). On the other hand, when we come to organised groups, the numerical aspect tends to assume positive significance. According to the purpose for which the group exists, and the differentiation of functions necessary for the realisation of this purpose, there may be both minima and maxima, below and above which the group ceases to function effectively, if it does not cease to function altogether. *Tres faciunt collegium* prescribes a traditional minimum for an academic lecture group. "Two is company" excludes the unwelcome third from a group of lovers. Small executive committees

are found to be better for discussion of details and for administrative decisions than large committees and conferences in which it takes long for singleness of mind to be achieved. Yet, for discussions of principle large gatherings are generally indispensable, in order that every one of many relevant interests or points of view may have its representative and advocate. Groups for the purpose of law-making (parliaments, legislative assemblies, etc.) invariably have a fixed numerical limit, however it may be determined from case to case, *e.g.*, by population, by constituent states, etc. It is noticeable that among primitive peoples the loss of a member from a sib or tribe, *e.g.* by marriage into another sib or tribe, or by death, is generally felt acutely, and that special rites or ceremonies are practised to re-affirm the stability and solidarity of the group. With larger groups, like nation-states, the tendency for the organisation to embody itself in a definite number is no longer so marked. If the membership becomes very small, the state will no longer be able to maintain itself against the pressure of other states. If the membership becomes too large, the internal unity of the state may be strained to breaking point. But to pursue the ramifications of this subject lies beyond the scope of the present argument. Enough if we have shown how the extensional aspect appears in a different light, when number is considered in relation to organisation. For, an organised group is an embodied universal: it exists as a common principle, or purpose, in the relations and activities of the members of the group. These members as particulars are enumerable, and it may matter to the embodiment of the universal what their number is, or, at any rate, between what numerical limits in a given case it falls.

6. So far I have developed my argument without using the terms "abstract" and "concrete" universal. The omission has been deliberate: I wanted to state my argument, if possible, without the help of these terms, not because they are in themselves inconvenient, but because they have become catch-words of controversy. Not that I want to shirk debate on fundamental philosophical issues, but the avoidance of controversial terms has sometimes this advantage that it facilitates a re-consideration of the facts on their merits. The mere mention of a term round which there has been a well-known clash of opposing views, is an invitation to take sides and settle the question with habitual judgments *pro* and *con* instead of looking at it with fresh eyes.

I make these remarks by way of preface to the attempt, now to be made, to connect the argument of this paper with

the brief statements, in my *Studies in Contemporary Metaphysics*, about universals. The view taken in my *Studies*[1] may be summarised as follows. Every datum, every bit (so to speak) of reality that comes to us in experience, is a "this-such". It is emphatically *this*, and no other, and so far "particular"; but it is also "*such*," and so far "universal"; that is to say, it has a nature, character, quality—a "what," as F. H. Bradley would have said—which makes it just what it is, and in thus constituting its identity also differentiates it from every other "this-such" in the company of which it may happen to appear in the context of experience.

It will be convenient to interrupt my summary here to explain, and, so far as I can, defend this first step.

This concept of the minimal datum as a "this-such" has been questioned, and I confess I do not know how to demonstrate my view. We are here in a region beyond the reach of argument, if by "argument" be meant a process of reasoning which proves a conclusion from premisses accepted. No, the function of all so-called "argument" in matters of this sort is simply to *point out*—to induce the reader so to look at the subject under discussion that he sees, or intuits, the datum in such a way as to perceive the description of it as a "this-such" to be appropriate. I may fail in this endeavour for lack of skill in the use of words, just as conceivably the reader may fail through bias of other theories to adjust his vision to what I would have him see and acknowledge as self-evident. At any rate, if our minds do not see alike in this matter, what follows will have been written in vain.

But it may assist the reader in reaching the desired adjustment, if I guard against one or two possible misunderstandings. Language, in its theoretical use, bears the stamp of "discursive" thinking—of thinking which analyses and distinguishes, no less than it synthesises, relates, identifies. To speak of "a" datum already implies discrimination, selection, isolation of this from that, of this from others. To speak of the datum as "this-such," at once makes explicit in the wholeness (so to speak) of the given the distinction between two aspects—this and such. The very concept of data is possible only at a level of thought at which data are actually only an element in the tissue of knowledge, and, when distinguished and isolated, are clearly "abstract". But, whether we consider the datum thus abstracted, or whether we posit hypothetically a level of immediate experience or pure awareness, prior to language, prior to thinking; whether, with Mr. Russell and others, we analyse the universe ulti-

[1]See, especially, pp. 131 ff., 183 ff., 208.

mately into "atomic facts," or whether, with Prof. Whitehead, we conceive of it as a flowing continuum, a tissue of events; whether our datum be thought of as a simple *quale*, or as an ever-changing complex of *qualia*—on any of these alternatives, it seems to me that whatever is, is "this-such". Whether we talk of experience, or perception, or acquaintance; whether we believe that what we experience, perceive, or are acquainted with, is the real or merely an illusory appearance of it; and whether the object of our awareness be the whole, or only a part of it, large or small—that which we are aware of here and now exhibits always indissolubly conjoined in fact, though distinguishable by reflective analysis, the two sides, or aspects, which I express by the compound term "this-such".

If I have failed to convince, I can say no more. But, if this first step be granted, then—and here I resume the summary of the view put forward in my *Studies*—I go on to say that the development of knowledge, the apprehension of reality as an intelligibly ordered system, whatever fragment of it may be datum here and now to a particular mind, proceeds by following the clue of the nature or character (the "what") of the given—the "universal".

Here I must interpose that, from this point of view for which "this" and "such," particular and universal, are inseparable, though distinguishable, aspects of the real, the central question of much modern discussion, *viz.*, whether particulars and universals are two fundamentally (*i.e.*, metaphysically) distinct classes of *objects*, is full of mistaken assumptions, especially when the answer given to the question is affirmative. For an affirmative answer hypostatises the products of abstraction, and those who adopt this answer pay the inevitable penalty in losing themselves in the maze of problems which centre around the "existence" of particulars and the "subsistence" of universals, and, further, around the relation of these two classes of objects, each with its own mode of *being*, when an object of the one class is predicated in a proposition of an object of the other class.

The more logical ingenuity is diverted in this direction, the more is the basis of all these fine drawn theories lost from sight, *viz.*, the union of "this" and "such" in every bit of the real which we at any moment immediately apprehend.

But to return from this polemical digression. The programme of "following the clue" (as I called it just now) of the universal may lead us in any one of several different directions, all of which, however, are contributory to knowledge, all of which reveal the real to us as an ordered, and so

far intelligible, whole. From any "this-such," however it comes to be singled out, we may, by way of "another such" and more other suches (if the solecism be permitted), *i.e.*, by way of others of the same sort, reach classes. Or, again, by correlating one sort of *quale* with another sort of *quale*, we may reach causal laws and generalisations to the effect that one kind of event is necessarily connected ("functionally correlated") with another kind of event. Or, yet again, from any this-such we may, by way of "this again" (even if it be, as it generally is, "this again with a difference") reach *individuals*. To illustrate the point crudely: Robinson Crusoe, believing himself alone on the island, catches, for the first time, a momentary glimpse of a dark figure among the bushes. Later, he perceives again a dark figure. Two distinct perceptions: two distinct objects, each a "this-such". Question, both practically and theoretically of immense importance to Crusoe: "This again" or "Another such"? Two groups of data, certainly; but whether they belong to one and the same individual or to two different individuals only further experience can settle. Anyone of the several possible types of order may attract to itself a theoretical interest of its own, yielding classificatory science, causal science, biography and history. But, because each contributes to knowledge and helps, in its own way, to reveal the nature of the real, each may also subserve the others, and help them more completely to achieve their purpose. However, this is not the place to pursue this topic of types of order, which are different kinds of universals, into all its ramifications. Whatever has been urged in previous sections of this essay, belongs here. What I have said in this section is enough, I hope, to show how the view taken of universals in my *Studies* underlies, and is completed by, the account given of them in this paper.

As the first glimmerings of experience expand into articulate knowledge, the "this" of the first datum expands into the world, the universe, the real as a whole, and the "such," distinguished from, related to, identified with, other "suches," expands into the variegated system of systems which is what the real is for us—which is what we mean when we say, "*Such* is the nature of reality: *Such* we perceive and think it to be".

IV.—DISCUSSIONS.

SPINOZA IN RECENT ENGLISH THOUGHT.

At a meeting in honour of a great thinker[1] it is proper to consider his significance for posterity, and, with so many representatives assembled from so many different countries, each may be excused speaking for his own. I propose therefore in this paper to touch on some points in connexion with the influence of Spinoza on recent English speculation.

I must first cast my net wide.

The empirical trend in English philosophy, the characteristic for which it is famous, or notorious, in the history of general thought, reached its acme in the Lockian tradition which culminated in John Stuart Mill. The revulsion against it expressed itself, as is well known, in three ways, each deriving from a different source: first, the minute examination of the logical basis of the traditional outlook; second, the constant re-study of ancient Greek texts; and third, the turning to German idealism. Typical products of the movement are Green's *Introduction to Hume* (with which may be compared Ward's examination of Spencer in his *Naturalism and Agnosticism*), Jowett's translation of Plato, and Caird's *Critical Philosophy of Kant*. It is easy to criticise them from the point of view of the exacter scholarship, yet they rendered inestimable service. They introduced subtlety into English thought, and while not abandoning the empirical method, yet brought under it factors which, so far, it had either not reckoned with at all or reckoned with inadequately. The three sources indicated soon concentrated themselves around the third, the study of the German Idealists, particularly Hegel, and it was expressly in the spirit of Hegel that this influential school, the so-called 'Neo-Hegelian,' did its work. The first point I desire to make is that that aspect of Hegel which seems to have exercised a permanent impression on English thought was that part which derives from Spinoza.

§ 1.

The story of the movement from Kant to Hegel has often been told. The members of the trilogy of Self, Knowledge and the World declared by Kant to be one under the organisation of the categories,

[1] This paper was read to the Spinoza congress at the Hague in the newly-inaugurated DOMUS SPINOZANA, February, 1927.

received each its special emphasis, and primacy over the others, at the hands of his successors. If Fichte stressed the Self in his philosophy of ethical self-assertion and Schelling the World in his self-identical absolute of Nature, Hegel singled out Knowledge and showed that the categories are the instruments, not of interpretation by individual understanding of individual experience, but of creation by universal reason of universal experience. The ultimate science therefore is the science not of conduct nor of nature but of thought, and of thought as it 'thinks itself'. It is a trite observation that Hegel's central idea was that of the complete rationality of things. The philosophy of history is one application of the logic; the philosophy of religion, another; the philosophy of nature, another. But whether in history or religion or nature it is one and the same logic. Whatever view be taken of any of the vexed questions of Hegelian interpretation, one conception stands out clear: what is real is rational, and the rational is eternal. 'In this conviction,' he writes, 'stands every plain man, as well as the philosopher; and from it philosophy starts in the study both of the spiritual and of the natural universe. The great thing, however, is, in the show of the temporal and the transient, to recognise the substance which is immanent and the eternal which is present.'

The problem arises of what Hegel means by 'rational'. What is this 'substance which is immanent,' this 'eternal which is present'? The answer is clear. Rationality is system. 'The truth is the whole.' Truth is not the agreement of an object with our conception of it; it is the agreement of a thought with itself. In truth, notion and reality coincide, but such coincidence is only in the whole.

To solve the difficulties involved in this position, recognisedly Spinozistic and already clearly set out in Spinoza's early treatise *On the Improvement of the Understanding*, Hegel employed the equally Spinozistic device of degrees of reality. Although every finite thing involves an untruth, yet in finiteness, and hence in untruth, there are degrees. The particular is incomplete, but the less complete is not less existent. It is less real. That is to say, it is farther removed in the logical scale from the necessarily self-existent which is the ground of all.

At the very foundation of Hegelianism therefore there stands the Spinozistic logic. The doctrines of evil and error, of imagination and pictorial truth, of the true and false infinite, of degrees in thought and reality—all these characteristically Spinozistic theories reappear in their full force in Hegel. This fact may possibly explain the singularly perverse character of Hegel's criticisms of Spinoza. These centre round two points. The first is what he stigmatises as the inflexibility and deadness of the Spinozistic substance. The second is the invalidity of the mathematical method in philosophy. Both these counts are based on a misunderstanding, a misunderstanding, it may be remarked, which has lasted down to this day. The first criticism is precisely that

levelled by Spinoza himself against Descartes, and that too not on physical, but on metaphysical grounds akin to Hegel's own. As for the second, again it is Spinoza himself who laid such stress on the distinction between 'linear' and 'implicatory' logic, while the 'method' of the Ethics is an 'order' only, and its tediousness was expressly recognised by its author.

However, we are not concerned here with the detailed antecedents of the philosophy of Hegel. It is of little importance that Hegel explicitly identified the 'indwelling Notion' with the 'adequate idea' of Spinoza, or the supreme independence of man, achieved with the recognition of his own determination by the Absolute Idea, with the phase of mind and conduct called by Spinoza the intellectual love of God. What is of importance is to note that in Spinoza as in Hegel it is the idea of rational system which holds the central place. That 'the Absolute is spirit' is the very heart of Spinoza's philosophy, if we understand this oracle to mean, as Hegel explained it himself,[1] that 'truth is only realised in the form of system'. No wonder that the English Neo-Hegelians found it so easy to go from Hegel to Spinoza. It was precisely this great and fruitful doctrine that they took over from Hegel; the very doctrine, that is, which Hegel himself had taken over from Spinoza.

§ 2.

The great critical solvent in English thought during the past half-century has been the work of Mr. F. H. Bradley. His central book, half-way between the *Ethical Studies* and *Appearance and Reality*, is the *Principles of Logic*. This great study of the fundamental nature of thought, which became so rare and which its author only re-issued in the last years of his life, appears to many, as they read it in its second edition, a little thin-spun and out-of-date. It is thin-spun, and it is out-of-date, but that for a special reason. Bradley's *Logic* is one of those masterly books which do their work so effectively that its positions become the property of all. One wonders how any one could ever have believed the doctrines which Bradley dispatched with such shrewd blows and pungent humour. He set out like a knight errant of old, but the dragons which he slew have passed into mythology.

The dragons slain by our metaphysical St. George were those of atomism and its allies in all their various forms. One famous chapter destroys associationism in logic and psychology; another, the mechanical doctrine of the formal syllogism; another, the logic of a classification which is of fixed immobile particulars. Truth and reality are not to be looked for in any separate thing. 'The truth is the whole.' In every judgment the subject, implicitly if not explicitly, is the whole of reality. The enemy is 'dogmatic individualism'.

[1] *Phänomenologie*, Vorrede, xxviii (ed. Weiss, 1908, p. 19).

Bradley of set purpose never mentioned his sources. His occasional references to Hegel are therefore doubly significant. So far as I know he made no special study of Spinoza, although one shrewd critic has marked him down as a 'Spinozistic nature'. But whether he made a special study of Spinoza or not, one point is abundantly clear. The central principle of his thought, however much derived from Hegel, is derived from the Spinozistic side of Hegel. The mouth of Bradley; the voice of Hegel; the message of Spinoza.

That this is really so is shown by the case of Bradley's fellow, and in a sense follower, the late Bernard Bosanquet. Whatever may be said of the master, the follower was undoubtedly a great and constant student of Spinoza. All his life long he seems to have kept Spinoza by him, and in all his books down to the very last there are to be found discussions not only of Spinozistic conceptions but even of Spinozistic texts. He was not in the narrow sense a Spinozist. I do not believe that there are any such. But he was a Spinozist in the wider sense, a man convinced that in the profound and patient thought of Spinoza there is a well of honest seeking for truth from which all can derive profit. Again and again Bosanquet starts his discussions and illustrates his conclusions from the writings of Spinoza. He is the crown of English 'Neo-Hegelianism,' but the Hegel in him was Spinoza. One may suspect indeed that the increase of his attention to Spinoza in his later years (if I am right in detecting it) is evidence of his own recognition of the fact that the good which he had received from Hegel he could have derived, in a more simple and concrete (and perhaps in a less dubious) form, directly from Spinoza himself.

§ 3.

Höffding[1] writes of Bradley as a 'Spinozistic nature,' but adds: 'only he lacks Spinoza's realistic eye for psychological and social phenomena'. Idealism, whether in the hands of Hegel or of his English followers, is a double-edged weapon. Hegel had protested that thought is not a screen which shuts us off from things; it shuts us in with things. Yet his own language often suggests that thought is creative of reality. The victory of intellectualism leads it to over-state its triumph, and an empirical revulsion begins. We are now in the reaction towards Realism, but it is an enriched Realism, a Realism 'with a difference'; some would say it is not, in the old sense of the word, Realism at all.

There are, I take it, two distinct sorts of doctrine which go by the name of Idealism. One is the doctrine that there is nothing in the universe but mind, the Berkeleian 'immaterialism'. The other, the doctrine that nature is one self-contained whole from inherence in which the so-called parts derive their characters. I have insisted already on the fact that it is this latter doctrine

[1] In *Modern Philosophers* (E.T., Macmillan, 1915), p. 58.

which formed the main platform of the English *Idealists*. The second point I wish to make is that it is this same doctrine which permeates the thought of the most influential English *Realists*. The point is not mine. It is adequately argued by Bosanquet himself. In his last complete book he remarks at length, and in a somewhat amusing manner, that whenever he wants a real discussion from the point of view of 'the whole,' the essentially philosophic position, he has to go to the arch-Realist, Prof. Alexander. It is curious indeed, as he observes, how the 'extremes' have 'met'. But it is understandable when we realise the nature of the meeting place. That Bosanquet drew much of his inspiration from Spinoza we have already seen; while it is no secret that Prof Alexander, to a 'Spinozistic nature,' adds a 'realistic eye' sharpened by the study of Spinoza's text.

§ 4.

The principal subject of discussion in recent English speculation is that of the nature and status of Mind. The 'extremes' of Idealism and Realism may 'meet' and on certain fundamental points be, with differences of emphasis, in accord. But on this all-important issue they differ, and violently. To the realist 'minds' (in the plural) 'are but the most gifted members known to us in a democracy of things'.[1] To the idealist, Mind (in the singular) *is* the organisation of the cosmos. To the former the unity of the universe is ultimately physical, and mind appears automatically when any part arrives at a certain complication. To the latter the unity of the universe is ultimately spiritual, and 'where there is no universal mind there is no unity of the universe',[2] at all. The cleavage is clear. It revolves round the great historic problem of Spinozistic interpretation, the place of the attribute of thought. Is the attribute of thought only one among many attributes, or does it swallow up all the other attributes in itself? Prof. Alexander has himself shown how, if time be substituted for thought in Spinoza's system, something very like his own philosophy would result.[3] Bosanquet, fighting till the end for the ultimate unreality of time, took the other horn of the dilemma and saw reality in thought. To Spinoza of course thought is in any case co-extensive with the whole of the real; to Alexander it is confined to a portion of it. Yet on an all-important point both Spinoza and his modern English students are firm and stand together. Thought, whether conceived of as the whole of reality, or as co-extensive with the whole of reality, or as covering only a part of reality, is not mere understanding. Bradley's well-known condemnation of intellectualism would, I think, be accepted of them all: "Unless thought stands for something that falls beyond mere intelligence, if 'thinking' is not used with some strange implication that never

[1] *Space, Time, and Deity*, I, 6. [2] *Meeting of Extremes*, 170.
[3] *Spinoza and Time* (Allen and Unwin, 1921).

was part of the meaning of the word, a lingering scruple forbids us to believe that reality can ever be purely rational". Rationalists, in fact, though they all are, they would yet one and all deny that reason in the narrow sense is 'sole possessor of the world'.

§ 5.

The position of Spinoza in English thought is typical of the English cast of mind. There is no adoration, not even discipleship. No English Lessing has said that 'there is no philosophy but the philosophy of Spinoza'; no Goethe has related how his mind was formed in the study of his philosophy; no Hegel declared that he is the very portal to thought. Yet to English thinkers of the widest circle he has been from the very first, in Toland's phrase, a 'great and a good man'; and right from the times of Hobbes himself who, when shown the *Opera Posthuma*, said: "*Ne judicate, ne judicemini*,"[1] he has been studied with sympathy and appreciated. Spinoza in English thought has not been a dead system, learned and taught as a matter of history. The great English thinkers have *used* him, and used him in true Spinozistic fashion, 'not for death but for life'. When the *Societas Spinozana* was first founded, the impression was abroad that to be a member one had to be a narrow specialist, pledged to the propagation of one particular doctrine. That of course is not the case, and the assemblage in the *Domus Spinozana* of thinkers of so many varying opinions is the proof. The characteristic of Spinozism is its truth to fact, and students of Spinoza are ranged, as they have been and still are in England, on all sides of interpretation. On the threshold without our conference room is inset the word VITAE, for life and use. Our ideal within is that of the HOMO LIBER, the free man.

[1] *ap.* Tönnies, *Thomas Hobbes*, ed. 2, p. 230, n. 48 (= ed. 3, p. 286). Hobbes remarked to Aubrey, with reference to Spinoza: 'he had cut through him a barre's length'. Can any reader throw light on this curious phrase?

L. ROTH.

THE GROUNDS FOR THE RELATIVITY HYPOTHESIS.

PROF. MACKENZIE'S article on *Time and the Absolute* in the last number of MIND raises an important question concerning the empirical foundation of the theory of relativity, which does not appear to have been noticed previously in these pages. I must, however, first point out that Prof. Mackenzie's own remarks on the subject appear to involve a serious misconception of the essence of the "restricted principle" of relativity, when he urges that this principle does not imply the impossibility of absolute simultaneity, or of its measurement. "If a distant star were to be suddenly extinguished, the date of its extinction could be accurately determined from the time at which its light ceased to reach our planet; since the velocity of light is quite definitely known" (*loc. cit.*, p. 50). "Similar calculations could, of course, be made from the point of view of any other planet; and all the results could be brought together and co-ordinated in some ideal clearing house."[1]

[1] I am not at all clear as to what Prof. Mackenzie means by this "co-ordination in some ideal clearing house"; but the conception seems to bear some analogy to the process of "reduction" in astronomy, whereby local results are "reduced" to the form which they would take for an ideal observer at the centre of the earth. But what is to correspond to the centre of the earth, *i.e.*, where is the "ideal clearing house" to be situated? Its position will presumably be determined by considerations of "ideality" in the matter of making optical observations. Thus, on the "classical" hypothesis it would be identified with the reference-frame at rest in the æther; and on the "Ritz" hypothesis (which is described below) it would be identified with the reference-frame at rest with respect to the source of the light. But on the *relativist* hypothesis that the velocity of *any* light-signal is the *same* with respect to *all* reference-frames, how can *any* "clearing house" be "ideal" or "privileged"? And, if *every* "clearing house" is thus *equally* "ideal," what remains to be "cleared"?

Whatever Prof. Mackenzie may *mean* by this "co-ordination" of results, it seems clear, from the context, that the possibility of the procedure *implies* that, if an observer on a planet P calculates that the star ceased to be self-luminous simultaneously with a past event on P, *e.g.*, a volcanic eruption, then an observer on another planet P′, moving relatively to P, will also conclude that the extinction and eruption were simultaneous. This, again, is contradicted by the absolute nature of the velocity of light, as Prof. Eddington clearly shows in his analysis of the calculations which these inferences involve (*Space, Time, and Gravitation*, pp. 24-26). The space-time relation known as the "interval" between the two events *is* absolute, *i.e.*, has an identical value relative to *every* frame of reference,

Now it is precisely this "co-ordination" which the restricted principle of relativity renders impossible; for the latter is essentially a deduction from the experimental fact that light and all other conceivable means of inter-planetary communication (such as electromagnetism and gravitation) are propagated at a critical velocity which has the peculiarity of being both *finite* and *absolute*, *i.e.*, its value is *finite* (as Roemer first discovered in 1667), and yet remains *constant* relatively to all ("unaccelerated") frames of reference, even though the latter are moving at a finite velocity relatively to one another. It is clear that the "co-ordination" which Prof. Mackenzie describes could be effected if, and only if, the velocity of light were either (*a*) *finite* and *relative* or (*b*) *infinite* and (therefore) *absolute*.

Numerous experiments performed since that of Roemer have definitely ruled out the possibility of the velocity of light being *infinite;* but I wish to point out that the evidence generally cited in expositions of relativity to prove that it is *absolute* is by no means conclusive. All that the negative result of the Michelson-Morley Experiments proves is that it is not relative to the *æther* (as the classical theory supposed): it still leaves open the possibility that the velocity of light is relative to its *source*. This would obviously have been the case if Newton's "corpuscular" theory had been true, for then light would have consisted of a number of small masses, and would therefore have been propagated in accordance with Newton's Laws relatively to its source (always assuming that the latter is "unaccelerated"). Since in the Michelson-Morley Experiment the source of the light is attached to the earth, a negative result would, on this theory, have been expected, for the light would have been propagated in all directions at a constant velocity relative to its source, *viz.*, the earth. I venture to suggest that, even on the *undulatory* theory, this hypothesis that the velocity of light is *relative* to its *source* is a perfectly possible one; and for two main reasons. (i) Most relativists simply identify the æther with "empty" space-time, or at least regard motion relative to it as equally meaningless with motion relative to space (what would seem to be meant by "absolute" motion). Some, in fact (*e.g.*, Schlick), state explicitly that "the belief in a material æther is incompatible with the principle of relativity". Such a view is only in keeping with the marked tendency in modern metaphysical speculation (and particularly in that of Prof. Alexander and Prof. Whitehead) to reject the traditional doctrine of substance and attribute which originated with Aristotle. For, once this is done, it is no longer necessary that "undulations" require a "carrier" like the æther.

but the *time* and *distance* both depend upon the frame to which they are referred.

Thus Prof. Mackenzie's suggestions—unless I have misunderstood their import—are essentially inconsistent with the special theory of relativity, of which the fundamental postulate is that the velocity of light *in vacuo* is an absolute quantity.

If the latter is postulated it may well be regarded, in Lord Salisbury's famous words, simply as "the substantive of the verb 'to undulate'". (ii) But even if it is urged that there *is* an "ocean of æther," and that this implies that the motion of the observer relative to the æther, and not to the source of the light, alone is relevant to the velocity of the light relative to the observer, we may retort with an *argumentum ad hominem:* if it is consistent (as the relativist hypothesis implies) with the "undulatory" theory to hold that the velocity of light, though finite, is identical relative to *every* frame (whatever be the motions of the latter relative to the æther); it is *a fortiori* consistent to hold (as I am suggesting) that the velocity of light is identical relative to *whichever* of these is at rest relative to its source (whatever be the motion of the latter relative to the æther).

Thus, whether or not there is an "ocean of æther" distinct from space-time, relativists, in view of the attitude they adopt regarding the meaning of motion relative to this æther, are not justified in inferring from the negative result of the Michelson-Morley Experiment to the absolute nature of the velocity of light; for this result would equally follow if the velocity of light were relative to its source, instead of to the æther, and in this case no radical revision of the traditional conceptions of space and time and their mode of interrelation would be entailed. *E.g.*, it is obvious that the "co-ordination" of the time measurements of different observers, which Prof. Mackenzie discusses, would be just as feasible on this hypothesis as on that of the classical physics.

In view of the inconclusive character of the Michelson-Morley Experiment it is somewhat surprising that practically none of the numerous expositions of the theory of relativity make any reference to evidence of a supplementary character; and it is only after considerable enquiry that I have discovered that there is, in fact, such evidence. It appears that the explanation of the Michelson-Morley result which I have suggested as a possible alternative was put forward as long ago as 1908 by Ritz, and is, accordingly, known as the "Ritz hypothesis". I know of only one systematic exposition of relativity in which it is so much as mentioned—Prof. A. V. Vasiliev's *Space, Time, Motion*—and I am indebted to Mr. R. B. Braithwaite for drawing my attention to this reference. Prof. Vasiliev states that the Ritz hypothesis "is contradicted by numerous experiments (*e.g.*, Arago's); and recently (1913) the Dutch astronomer, de Sitter, proved by careful investigations that the velocity of light coming from the fixed stars, is independent of the motion of these stars" (*op. cit.*, p. 137). Also, Prof. Eddington has pointed out to me that the Ritz hypothesis would involve an excessive complication in the observations of binary systems, and especially of eclipsing variables (in which cases the direction and velocity of the source's motion is continually changing), which is not in fact realised.

But it is surely desirable that the possibility of the Ritz hypothesis

should be discussed in detail in standard expositions of the theory, as has been the case with the interpretation of the Michelson-Morley Experiment. No one can plausibly deny that the result of the latter conclusively rules out the possibility of the classical hypothesis that the velocity of light is relative to the hypothetical æther; but one would like to be more familiar (than one is, after reading standard expositions of the theory of relativity) with the precise nature of the phenomena alleged to contradict the Ritz hypothesis before one finally rejects the latter. In the four papers on *The Philosophical Aspect of the Theory of Relativity* published in MIND (1920, p. 415 ff.) Mr. W. D. Ross suggested certain alternative hypotheses, compatible with the classical mechanics, which would account for the Michelson-Morley result. Briefly, these were (i) that the earth is at rest in the æther; (ii) that there is a convection of part of the æther by the earth; (iii) that there is no æther. Mr. Ross laid chief emphasis on (i). Dr. Broad pointed out that his argument might be construed as meaning (ii); but that to both hypotheses there were conclusive experimental objections (aberration, etc.), in addition to the general *a priori* unplausibility of so "geocentric" a view as the first. It is unfortunate that Mr. Ross did not concentrate his attention on (iii)—the Ritz hypothesis. ("There is no reason why the motion of the earth relative to the heavenly bodies should affect the velocity of rays of light in a laboratory, which have nothing to do with the heavenly bodies but only with the earth"), because it appears to be the really important alternative to the relativist principle, and conflicts with no well-established scientific results. It can only be rejected in virtue of the results of experiments specially performed *ad hoc*.

I conclude, therefore, with a plea for the more detailed discussion of the experimental facts alleged to disprove the Ritz hypothesis. To establish the fact that the velocity of light is absolute the Michelson-Morley result is certainly *necessary*, as, apart from it, the velocity of light might be relative to the *æther;* but it is not *sufficient:* we also require the experiments of de Sitter to show that the velocity of light is not relative to its *source*. *Per contra*, the latter, thought *necessary*, are also, by themselves, *insufficient*, for they are perfectly compatible with the æther hypothesis: according to the latter the velocity of light is relative to the *æther*, and the velocity of the *source* relative to the æther is therefore quite irrelevant.

One point more. It may be disputed whether I am justified in attaching such importance to the *experimental* justification of relativity. "To those who are still reluctant to leave the old faith, these deviations (from Newtonian laws) will remain the chief centre of interest; but for those who have caught the spirit of the new ideas the observational predictions form only a minor part of the subject. It is claimed for the theory that it leads to an understanding of the world of physics clearer and more penetrating than that previously attained." So writes Prof. Eddington in *The*

Mathematical Theory of Relativity; and the view that the logical position of relativity is that of an *a priori* principle, *suggested* but not necessarily *entailed* by empirical data, is still further supported by the results of Prof. Whitehead's work; for he has deduced the relativity transformations from more or less *a priori* considerations, the sole difference being that, in his version, a constant k takes the place of c, the velocity of light *in vacuo*. It is merely an experimental fact that the two are *approximately* identical. It is true that this view of the logical position of relativity has received eminent support, but I venture to think that it will not stand criticism. Prof. Eddington has repeatedly made it clear that the relativist's conception of space and time and their mode of inter-relation is only *one of several possible forms* of "natural geometry" between which it is the business of the experimental physicist to decide. (*Cf.* especially the *Prologue* to *Space, Time, and Gravitation.*) Also, Prof. Whitehead's scheme is obviously not a purely *a priori* one: it starts from a number of initial assumptions (such as that of a plurality of time-systems) whose whole *raison d'être* is, surely, the experimental fact that light is found to travel at an absolute velocity. The conception of the latter is absurd on the traditional conception of space and time, and *if* a velocity in the universe *is* found to be absolute we can *therefore* infer that this traditional conception is mistaken. But *a priori* it is just as possible as the new conception involved by relativity.

It is for this reason that I feel justified in concluding with an appeal for the more careful scrutiny of experimental results and their alleged implications. For it is not only the "restricted principle" of relativity that is founded on these: the most striking features of the *generalised* theory are likewise dependent on them. In particular, the view that space-time has a general curvature, but is not strictly homaloidal, and that such curvature is equivalent to a field of force, is simply a logical implication of the "restricted principle" when taken along with the "principle of equivalence"—another purely empirical premise. Relativity, in fact, is *a priori* only in so far as it is merely a theory of measurement. To this extent it simply asserts that no frames of reference are privileged, and that the choice of spatial and temporal unit-standards is likewise quite arbitrary. But in so far as it is not simply a theory of "all possible worlds," but professes to have a special application to that world of which we are members, its foundations are strictly empirical, and it cannot, therefore, be justified if the experimental evidence necessary for this purpose is lacking.

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V.—CRITICAL NOTICES.

The Ways of Knowing; or, the Methods of Philosophy. By Wm. Pepperell Montague. London: Allen & Unwin, Ltd., 1925. Pp. 427. 16s.

This is in many ways a most attractive book. Not all American writers on philosophy charm us by their literary style; but Prof. Montague at least is one of those whose manner of writing at once predisposes the reader in his favour. The whole book gives the impression of ease in composition, as if the subject had gradually arranged itself in the author's mind so completely that his thoughts at once became clothed in appropriate language as soon as the time came to put pen to paper. Particularly happy is the choice of concrete examples to illustrate abstract theses, and the freshness of the author's imagination in this respect makes his writing always entertaining even when he is dealing with hackneyed topics.

This first characteristic of the book is combined with another which might seem at first sight inconsistent with it. There is a curious formal rigidity in the arrangement of the topics dealt with, a system of divisions and sub-divisions which seems to guarantee that every possible alternative is being treated in the only possible logical order. The amount of "architectonic" in this book reminds one at times of the three *Critiques*.

Prof. Montague begins by dividing philosophy into Methodology, Metaphysics and Theory of Value. Each of these is again subdivided, the first, which alone forms the subject of this work, containing the sub-divisions Logic and Epistemology. Logic is treated in Part I, Epistemology in Part II.

By Logic, the author finds it convenient to understand *the search for the ultimate criteria by the use of which our beliefs can be validated and true knowledge be attained;* and the full title of this Part is therefore, Ways of Attaining Knowledge: The Six Methods of Logic. The six types of logical theory distinguished are Authoritarianism, Mysticism, Rationalism, Empiricism, Pragmatism and Scepticism, each of which is connected with a particular source of belief. Within most of these types again, sub-types or tendencies are distinguished; Pragmatism for instance is found to embody three tendencies, Futurism, Practicalism and Relativism.

The title of Part II. is, Ways of Interpreting Knowledge: The Three Methods of Epistemology. These are Objectivism, Dualism,

and Subjectivism; the first is found in three distict forms, and of the last we can distinguish seven possible stages or varieties.

Opinions may differ as to the utility of such a scheme, which seems to imply that it is really possible to delimit accurately all the different problems of philosophy and to enumerate exhaustively the alternative solutions of each. I hasten to add, however, that the author is not the slave of his scheme. He is perfectly aware that his divisions are chiefly a matter of convenience and by no means water-tight compartments. He never, I think, allows the formal arrangement to hamper the natural order of his thought, nor (as I have already said) to impose any dryness or crabbedness on his style. On the whole the advantages of the scheme appear to outweigh its disadvantages; in Part II, its adoption makes, almost everywhere, for clearness.

Returning now to Part I, it is plain that the different methods are not all on one level. No one, I imagine, has ever claimed that authority is the only source of knowledge, but only that it is *one* source of knowledge; a theory such as empiricism, on the contrary, holds that sense-experience is the only source of knowledge. Some of the methods therefore admit from the first the co-operation of others, while the rest may be forced to give up their exclusive claims and accept a more humble, though recognised, position. It is towards such a federation of the methods that Mr. Montague works; though in the end the federation is not one in which all the members have equal power. The final result in fact reminds one irresistibly of the League of Nations, and the positions assigned to Authoritarianism and Mysticism are analogous to those held in that body by such powers as Esthonia and Venezuela. Scepticism is not exactly included in the federation, but is supposed to exercise from outside a wholesome critical influence, which the imaginative may compare with that exercised upon the League by the U.S.A.

The chapters devoted to Authoritarianism and Mysticism are short, and consist for the most part of destructive criticism of these methods. The discussion is, on the whole, clear and full of common sense, and the case against authoritarianism in particular is very well put. If there is a weakness in these chapters, it is that Mr. Montague is obviously by temperament so much out of sympathy with the views he is criticising, that one feels that his verdict was settled before the trial commenced. His own attitude is one of robust faith in democracy and individual judgment, and he seems to regard the progress of humanity as inevitable, given the extension of those things.

The next two chapters are devoted to Rationalism and Empiricism, and the treatment is much more elaborate. This section, alone in Part I, deals with questions which would commonly be regarded as belonging to Logic, while the "ontological status of universals" and the "types of cosmological rationalism" are also discussed.

All these discussions hinge, as is inevitable, on the question of the relation of universals and particulars; unfortunately Mr.

Montague's treatment of this point is, it seems to me, perhaps the weakest part of the whole book. His accounts of extreme rationalism and extreme empiricism are well done and bring out the difficulties to be faced, but his own solution of these difficulties suffers from a want of clearness at just those points where clearness is most necessary.

His view is that a particular is in the first place a bundle or complex of universals; the universal is really a part of the particular. But a complex of universals is not enough by itself to constitute a particular. "The intrinsic properties of a thing give only its essence which other objects might also have and still be different"; to make it a real individual, it must also have relational properties "which other things, no matter how similar, could not have". The only relational properties however which no two individuals can possess completely in common are spatial and temporal; so we finally arrive at the definition "*a particular is nothing but a complex of universals endowed with a position in space and time*" (p. 78).

This view seems to me clearly untenable unless it is intended to assume absolute space and time. If "to have a position" means only "to stand in a certain spatio-temporal relation to other complexes," then I do not see how there could ever be two complexes differing only in their positions. In order that two similar complexes should have different positions, they must be two and not one; in other words, it cannot be the having of different positions which makes them diverse, since the fact that they can have different positions *assumes* their diversity. As Mr. Russell has put it, "the terms of spatial relations cannot be universals or collections of universals, but must be particulars capable of being exactly alike and yet numerically diverse".

Of course if Mr. Montague does intend to assume absolute space and time, this difficulty will vanish; but to make such an assumption is only to bring back the particular under another guise, in the shape of the point which is numerically different from all other points. Whether or not he really intends to do this I cannot determine. At times his language seems to imply that he does, as when on page 114 he says "I cannot but recognise that the totality of 3-dimensional Euclidean space is composed of an infinite multitude of cubic miles. Such cubic miles constitute its parts. The sum of such spaces is equal to the whole space." But his whole treatment of space and time suffers from a vagueness which is unfortunate, since the matter is a crucial one not only for his position here, but also in Part II, when he is distinguishing real objects from appearances.

The above view of the nature of particulars is combined with that view of the analysis of propositions which in this country is associated with the name of Miss E. E. C. Jones. "Every judgment expresses a duality of connotation in its subject and predicate terms, and a unity of denotation in its copula." The exposition of this view is fresh and vigorous, but no account whatever is taken of the

objections which have been made against it, particularly by Mr. Russell. This ignoring of current objections to the positions taken up is indeed the chief weakness of the present section. It would not be so worthy of notice were it not so exceptional a thing in the book; but almost everywhere else Mr. Montague reaches his conclusions by a careful balancing of all the different views which are worthy of consideration, so that his omission here is the more surprising. He confesses himself, indeed, "only a layman as regards the new logic," but one of his professed objects in these chapters is to defend the Aristotelian logic against both the Neo-Hegelians and the 'realistic symbolic logicians'. Such a defence is bound to fail unless the advocate knows the case which he has to meet; and so far as I can make out Mr. Montague is simply not acquainted with the reasons which have been urged against the traditional doctrine. Where he does show any acquaintance with what "the new logicians" have said, he almost invariably misconceives their position. On page 74, for instance, he actually attributes to Frege and Russell the amazing view that we can define the number 2 only by pointing to an *existent* pair and saying "By 2 I mean the class of all classes similar to *that* class".

It is unfortunate, also, that he should have resuscitated the old fallacy that the principle of the syllogism can be proved from the Law of Contradiction (p. 90). He does not seem to perceive that his proof of the validity of the syllogism *Barbara* assumes the validity of the syllogism *Bocardo*.

I have given perhaps an undue amount of space to the consideration of these chapters, which together make up only about one-seventh of the whole book; but every reviewer knows how much easier it is to enlarge on points of disagreement than on points of agreement. The two chapters which follow, on Pragmatism and on Scepticism, seem to me excellent; the latter subject in particular is treated more fully than in any book in English which I can call to mind at the moment. Mr. Montague adopts from Weber the classification of arguments for scepticism under four heads, naming them respectively the Historical, the Dialectical, the Physiological and the Psychological.

A chapter on the Federation of the Methods, to which I have already referred, concludes Part I.

Part II contains only 77 pages, as against nearly 200 in Part I; but it is in this part that Mr. Montague gives us his most original work. He does not attempt to cover the whole of Epistemology, but confines himself to a single problem, though that, no doubt, the most vital of all. This problem, to state it in his own words, is *whether or not the object apprehended can retain its existence and character apart from its relation to the apprehending subject.* The general method of discussion is similar to that of Part I; Mr. Montague, that is to say, first examines in order the different views which have been taken, and finally reaches the conclusion that the true view must combine elements selected from each. The three

views considered are Objectivism (which includes the new American Realism), Subjectivism (which covers all forms of Idealist theory), and Dualism (in the different forms it has taken from Locke down to Prof. Strong). The author's attitude to all these theories can most briefly be explained if we turn at once to his concluding chapter. He there states that, taking each view in its extreme form, it can be analysed into a pair of propositions. Thus:

Objectivism asserts:

(1) All experienced objects have an independent meaning or essence that gives them a status of *possible* physical existence.

(2) All perceptually experienced objects (sense-data) enjoy a status of actual physical existence.

Subjectivism asserts:

(1) All entities are (selectively) relative to a self and *possible* objects of its experience.

(2) All entities are (constitutively) relative to, or dependent upon, a self, and cannot exist except as *actual* objects of its experience.

Dualism asserts:

(1) The system of objects experienced by a self and the system of objects existing externally to that self and causing its experience can vary independently of each other.

(2) The experienced objects and the existent objects, because they vary independently of one another, are never co-incident or identical, but constitute two mutually exclusive systems of metaphysical entities.

Mr. Montague's further assertion is that, in each of these cases, the *first* proposition is true and the *second* is false.

It will probably be admitted that this scheme illustrates perfectly what has already been said about Mr. Montague's love of formalism. Perhaps love of formalism is not quite the right phrase—it is rather a case of the artist's delight in some complicated but perfectly symmetrical design. There must be few people (and I for one do not envy them) who do not feel the attraction of such "patterns" of ideas. Who has not often wished that Kant might have been right, and that there were exactly twelve categories divided into four groups of three, or sighed to think that the four antinomies did not stand so four-square as they seem to do? But there have been too many of these neat schemes offered us from the time of Proclus onwards, and it is to be feared that most people nowadays, when confronted with a theory of such symmetry, are apt to feel that its very beauty of form shows that it is a creation of the human mind, instead of being imposed from without by the stern nature of reality.

This prejudice must not of course be allowed to count as an argument. Mr. Montague's position is as a matter of fact worthy of the closest examination. I shall however attempt no such examination here, not only because to do so would call for much more space than I can command, but because I very much doubt whether the position is here expounded in sufficient detail to make it really in-

telligible. At any rate I confess that a number of difficulties occur to me, to which I cannot in the least gather what Mr. Montague's reply would be. Most of these are in the end connected with the nature of space, as to which I have already said that it is difficult to extract a consistent view from Mr. Montague's statements. So far as I can make out, his theory of perception essentially depends on his view that a particular is nothing but a complex of universals endowed with a position in space and time. What we perceive is always a complex of universals (an essence) and we locate that at a certain point in space. If there really is such an essence in that position (*i.e.* an existent object), then what we are perceiving is simply that object. For there is nothing in the object beyond the essence. If on the other hand there is no such essence in that position, then what we are perceiving is *only* an essence, and not an existent. Thus perceived objects are sometimes numerically identical with existent objects; and when they are not, they are not existents at all. What I cannot see is how on this theory illusory objects can even be extended, which clearly they are.

The postcript which closes the book runs to about 100 pages. It expounds the same theory, this time not in the formal manner, but in the shape of a philosophical dialogue. I do not think it adds anything substantial to the theory, but it is beyond doubt one of the most successful and entertaining essays in this manner which we have seen for a very long time. It is not altogether certain how far our contemporary schools will consent to recognise the persons of this dialogue as good representatives of their respective views. I doubt very much whether the Absolute Idealists will accept the statements of "Bryce" as an adequate account of their position; and "Partridge," who is put forward as representing "the philosophic attitude of those British and American philosophers who might be classed as New Realists," seems to me exactly one hundred per cent. American. To say this of course is only to say that Mr. Montague has not achieved the impossible; the dialogue remains a very successful experiment in a very difficult *genre*.

ALAN DORWARD.

Religion in the Making. By A. N. WHITEHEAD, F.R.S., Sc.D., etc., Fellow of Trinity College, Cambridge, and Professor of Philosophy in Harvard University. Cambridge, at the University Press, 1926 (reprint, 1927). Pp. 160. 6s. net.

CONSISTING of four Lowell Lectures for the year 1926 this book is a sequel to the previously published course of lectures, on the same foundation, bearing the title *Science and the Modern World*. As the earlier course contained interesting observations on the history of natural philosophy, so, as we should expect, does the more recent volume abound in remarks on the history and nature of religion that bespeak insight and penetration. But if readers of *Science and*

the Modern World found its chapters on 'God' 'Religion and Science,' etc., difficult to understand, they will probably regard them as child's play in respect of intelligibility as compared with the philosophical portions of *Religion in the Making*. Dr. Whitehead's style has graces: but lucidity is not among them. He is apt to use expressions for his own thought and meaning that are ill-chosen for conveying that meaning to others, because others have been wont to associate quite different significations with the same expressions. To his reader, to whose standpoint the writer does not accommodate himself, he will often seem to say what he does not mean, and to mean what he does not intend to say. And at times he becomes rhetorical and poetical when scientific precision is especially called for. Many terms, again, are technically used without having received technical definition; and the burden is imposed on the reader of trying to discover what exactly they signify for the writer. The obscurity that results from these practices is the more tantalising in that it is the avowed aim of these lectures especially "to direct attention to the foundation of religion on our apprehension of those permanent elements by reason of which there is a stable order in the world" (*Preface*): a theme as to which the theologian would naturally welcome clear teaching from a distinguished mathematician, logician and physicist.

There is another observation that may be passed at the outset upon the author's method in general: not this time his method of exposition but his method of thought. Dr. Whitehead undertakes to give a concise "analysis" of the various factors in human nature that go to form a religion; and in his third lecture he pursues "analysis" of the universe into its formative elements, which he takes to be (1) creativity (whence issues temporal passage of the actual), (2) the realm of ideal forms (non-actual but exemplified in everything actual), and (3) the actual but non-temporal entity whereby the indetermination of mere creativity is transmuted into a determinate freedom (what men call God). "Analysis" suggests and promises empirical procedure. The term is properly used to denote such processes as the partitioning of a chemical compound into its constituent elements, equally actual bodies as the analysandum, and the reduction of a sound to pitch, timbre and intensity or of a psychosis to cognitive, affective and conative elements, that are never isolable actualities any more than the chemist's hydroxyl-radicle, but are distinguishable from one another and are each identifiable in different sorts of complexes. But the "analysis" employed by Dr. Whitehead is of neither of these kinds. It is so essentially different as to call for another name. It is invention rather than finding by partition or by discrimination: sometimes it is abstraction, idealisation and verbal hypostatisation; sometimes guessful or postulatory imagination directed by private predilection. Of such 'analyses' and resulting 'analytica' an indefinite number is possible; but as there may be no grounds for preferring one to another, none furthers science and none contributes to philosophy such as is knowledge as well as self-consistent thought.

To pass now to the matter of these lectures: the first treats of religion in history. Religion is nowhere defined in terms that describe its unique essence through all the stages of its historical evolution; but now one and now another 'note' receives especial emphasis. Thus the first note to be mentioned (p. 5), pertaining to the doctrinal side of religion, is that it consists of a system of truths ('beliefs' would be more correct at this stage) which have the effect of transforming character. Morality would thus seem to be predominantly, though perhaps not exclusively, indicated; and a relatively advanced stage of religion is therefore alone here contemplated. The same restriction applies when, next, it is stated that religion is the art and theory of the internal life of a man, and is "what the individual does with his own solitariness". In this connexion, by the way, Dr. Whitehead drops the unfortunate remark that "most psychology is herd-psychology"; but perhaps he does not mean us to take him *au pied de la lettre*. He also affirms that religion, as soul-solitariness, runs through three stages to its final satisfaction; "transition from God the void to God the enemy, and from God the enemy to God the companion": a cryptic utterance if intended for an empirical generalisation. Coming to the question of the historical emergence of religion and its external expression, the lecturer puts the four factors or stages that he would assign in the following order of appearance in time: ritual, emotion, belief, rationalisation. There is more accordance with fact in the qualifying remark that follows: "perhaps it is untrue to affirm that the later factors are ever wholly absent". For it is not easy to find any element in virtue of which religious experience is constituted *sui generis* save belief in an object (the 'numinous,' the dæmonic or divine) the peculiar nature of which determines the uniqueness of the emotional response in which religious experience, on its affective side, consists. Psychologically and historically, it would thus seem, belief of crude or unrationalised kind must have come first. Religious, as distinct from previous non-religious, emotion would be concomitant; religious ritual, consequential. At any rate it is hard to accept the view that ritual, in the comprehensive sense in which Dr. Whitehead understands it, is the source of distinctively religious experience in general. That a specific kind of ritual, originally non-religious, should later come to be religiously interpreted and appropriated, is possible enough; but that presupposes the existence of religiousness. If ritual be so broadly conceived as to include the movements of rooks and starlings on the wing (p. 10), it does not seem to have any more immediate connexion with the emergence of religion, save in respect of temporal proximity, than has the deposition of the cretaceous strata. The question is not whether ritual stimulates emotion, but what stimulates distinctively religious emotion. Ritual, it is confessed, stimulates play also; and drugs are as effective stimulants of emotion as is ritual (p. 11). Dr. Whitehead seems to give away his case when on the next page he glides into the observation that there is evidence of the *religious* use

of drugs in conjunction with the *religious* use of ritual. One cannot here pass by the *obiter dictum* that the use of wine in the Communion Service, in view of the fact just mentioned, is "a relic of the religious awe at intoxication". A wilder statement could hardly be hazarded: bread and wine meant to the Jew, as perhaps they mean to the French peasant of to-day, what bread and water mean to the Englishman. Lack of acquaintance with the Hebrew mind is a dangerous asset for one who would comment on Hebrew institutions or venture on exegesis of Hebrew literature—as Dr. Whitehead does when he interprets, later on, the phrase 'the fear of the Lord' as meaning not worshipful awe but terror at what the Lord might do.

If ritual have nothing to do with religion until it is religious ritual, it cannot be a cause or source of religious experience. It is a further mistake, one ventures to submit, to see in myth the expression of incipient religious belief as well as of incipient rationalisation; unless indeed 'myth,' admittedly a term of elastic usage and indefinite signification, be taken in the sense of the anthropic symbolism that came into being along with the use of language. But then it has no exclusive reference to religion. Within that sphere, it, as well as ritual, already presupposes belief in the reality of some object or objects, or in an actual counterpart to what, psychologically, is imaginal or conceptual.

With the author's account of the rationalisation of religious belief, I find myself more in agreement. "Rational religion emerged as a gradual transformation of the pre-existing religious forms"; and it advanced along with civilisation, science and morality. Perhaps Dr. Whitehead assigns undue importance to travel in the mediation of progress and becomes somewhat fanciful when he reminds us that St. Paul's conversion took place on a journey. That the carrying off of the Jews to Babylon profoundly affected their religious thought at one stage of their history, is doubtless true; but for the most part it was extension of international relationships that broadened their intellectual and theological outlook. Some think it was thus that Amos's monotheism was evoked; and it has recently come to light that that supreme forward step had been made ages before by an Egyptian, apparently a contemplative philosopher rather than a statesman or a traveller.

The second lecture is entitled 'Religion and Dogma'. It begins with an interesting comparison between Christianity and Buddhism in respect of their attitudes toward the world's evil and their relations to metaphysical doctrines. Buddhism, the writer thinks, is stagnant because its metaphysic is stereotyped; Christianity has been progressive because its metaphysic has been fluid and because it starts from elucidatory facts rather than from elucidatory dogmas. There are several remarks in this general context that contain flashes of insight; but one fears that some of the statements owe a little of their strikingness to their one-sidedness. Christianity has always possessed metaphysical beliefs underlying its faith that "all things work together for good"; and it by no means relies solely on such

particular elucidatory facts as that such and such a person, on such and such an occasion, overcame evil with good. Nor can it be a fundamental point that rational religion originates in solitariness (p. 48), as if this were the whole truth about the matter; for "it is not until belief and rationalisation are well established that solitariness is discernible as constituting the heart of religious importance" (p. 9), and religious solitariness is hardly possible before more or less rationalised beliefs are entertained.

It is in this lecture (p. 49) that the obscurity to which I have alluded begins to baffle the reader. Pages 49 and 50, I venture to think, will convey no inkling to the generality of readers as to what Dr. Whitehead is there precisely teaching, on an issue of apparently central importance, until they have been expanded to double their length and illustrations have been incorporated. But it seems clear that the writer is maintaining that "what is permanent in the nature of things," a determinate "grading of values" over and above self-valuations, a cosmological as well as a personal factor, is involved in religion. The world has a "character" and, despite evils and disharmonies, manifests a "rightness," in the appreciation of which, religion, it seems to be implied, consists. But whether 'rightness' be an æsthetic, a moral, a logico-mathematical, or a teleological, conception, or a mixture of such ideals, is unfortunately not here revealed. Dr. Whitehead becomes more comprehensible again when he argues that religion cannot be grounded upon direct vision of a personal God: a position which most theologians have accepted. It is a step from observed order, if that notion may be substituted for the author's conception of a rightness which seems to be conceived, so to say, as rightness *per se* or as abstracted from ends, appreciations, compossibilities, etc., to a personal Orderer. And the difficulty of the monotheistic theory is "to get itself proved". As to that, surely the same may be said of the pantheistic and atheistic theories with which it is compared. Perhaps the writer would agree; but he does not say so in the present context.

One or two subsidiary topics are touched on at the end of this second chapter in such a way as to afford illustrations of the author's occasional contentment with half-truths. Christianity is said to show a serious divergence from Hebrew theism in respect of its insistence on divine immanence; here it is overlooked that there are several 'Semitic' concepts of God at different stages of the development of Hebrew theology, not one only, and that Hebrew literature contains many sayings such as that God bringeth forth the clouds, maketh the thunder, ruleth the sea, that "fire and hail, snow and vapours, wind and storm" fulfil His word. Again, we are told that if the modern world is to find God, it must do so "with the help of John and not of Paul" (p. 64), as if Paul dealt out only such assertions as "in flaming fire taking vengeance, etc." and none such as "neither death nor life . . . nor things present, nor things to come . . . nor height, nor depth, nor any other creature, shall be able to separate us from the love of God"; while John never

gave expression to such severities as "he that obeyeth not the Son shall not see life, but the wrath of God abideth on him". These, however, are small points. We come to others of larger philosophical importance in Chapter III.

The first question there dealt with is the relation of religious faith and doctrine to metaphysics. That theological dogma both is, and presupposes, rational metaphysics, unless it is but to pass for symbolism of moral maxims or of pious feelings, I agree. When Dr. Whitehead says that this position has never been "seriously" doubted, he must mean that *he* attaches no seriousness to such demurrers; for Schleiermacher and Ritschl were serious enough in their denials, as well as the others who, as he observes, in the last century based their religious beliefs on historical investigations.

The next assertion is that "religious experience cannot be taken as contributing to metaphysics any direct evidence for a personal God" (p. 74): which, again, so long as 'direct' is emphasised, expresses my own conviction.

At this point the author makes the 'analysis' of the actual, temporal, world into the "formative elements" that have here been already mentioned. Among these elements, we have seen, is the one God whose existence, we have been previously told, cannot be proved. Further elucidation of the status of these formative elements —creativity, the ideal and non-actual forms, and God—is sought by another mode of analysis of the actual world. But I am unable to expound the author's thought in this connexion because to myself it is mostly incomprehensible. It seems to be a further development of the theory presented in *Science and the Modern World*, soaring higher into poetical metaphor, abstractiveness and paradox; but as I cannot translate it into terms of the stock of ideas that I can now think with alone, I cannot profess to judge of its meaning, save here and there.

I can wonder why the alternative theory of a universe composed of self-subsistent monads, or analysable into 'creativity' alone, is not considered before the conclusion is reached that definite results emerge in a changing world only because of "the inclusion of God in every creature". I cannot see—to refer to a statement that *prima facie* is exceptionally clear—how "if God be an actual entity which enters into every creative phase" (p. 85) He *can* be "above change"; nor why, if He could, "He must be exempt from internal inconsistency which is the note of evil"; nor why, since he is *actual*, "He must include in Himself a synthesis of the total universe," any more than do I who am also 'actual'. I suspect that God is reached, in Dr. Whitehead's theology, by definition or by fiat, and find no argument to show that any actual entity is denoted by the definition. When, after all that has gone before, one is suddenly told (p. 86) that "God is the measure of the *æsthetic* consistency of the world" (italics mine), one's breath is taken away; and in that applied science is turning this once fair world with increasing rapidity into one of æsthetic revoltingness, it looks as if the immutability of God,

to which the lecturer clings, provides a good illustration of the passingness of religious dogma, on which he insists in his concluding chapter. Another item that I think I grasp in Dr. Whitehead's theology (p. 86), is that he follows Plato in the avowed dualism of the *Timæus*. Evil cannot be due to the determinism derived from God, or to His immanence in the 'passage' of the world; it is due to additional formative elements—apparently comparable to the ὕλη of the ancients. The reader will perhaps here be led to revise his previously formed opinion as to what 'creativity,' as ascribed to God by Dr. Whitehead, means. The remaining sections of Lecture III, dealing with value, with body and mind, and with creativeness, I can offer no comment upon save that they contain utterances similar in nature to the pronouncement, cited from "a great philosopher," that time is the mind of space.

The last of the lectures is on Truth and Criticism. Religious dogma is affirmed to be a generalisation of final truths perceived as exemplified in particular instances; and, further on, to be the expression of a fact as it appears within a certain sphere of thought. The meaning of the precise terms in which dogma is formulated is dependent on the system of thought to which the terms are relevant. As systems of thought are transient, so must dogma be fluid or capable of restatement, never final. Formulations are but "the froth upon the surface"; while the stable principle of religion is that "there is a wisdom in the nature of things, from which flow our direction of practice, and our possibility of the theoretical analysis of fact" (p. 128). The last statement seems to be tantamount to the contention of the theist who bases his theology on the fact of the manifold order and the suggestion of purpose in the world. But whereas the ordinary theist passes on from wisdom to a wise One and from purpose to an intelligent willer, Dr. Whitehead appears, at least in a paragraph at pp. 138-139, to attribute vision and knowledge to his God but figuratively: to identify God with the "conceptual realisation of the realm of ideal forms," with the 'kingdom of heaven' as he calls it. However, a few pages further on, it is re-emphasised that the abstract forms, the realm of Ideas, the kingdom of heaven, are not real and are but the link between God and actuality. One would now be inclined to conclude that by 'God' is meant a rational Spirit. But one's repose is upset again when presently God is identified with "the valuation of the world". Whether the more concrete form of expression is figurative of the abstract, or the abstract is metaphor for the concrete, it will have become precarious to decide. The worst of frequent resort to abstractions and figurativeness when plain speech is just as easy, is that when plainness of speech does emerge it is liable to be taken to be figure. There would be much excuse, therefore, for a reader who gathered that Dr. Whitehead is atheistic in the sense that Spinoza may be said to be, even if Dr. Whitehead really intends to profess theism of the type represented, *e.g.*, by Leibniz. In conclusion, if Dr. Whitehead's theology be theism, *i.e.*, if 'God,' in this

book, denotes a personal Spirit, it would seem that his theism is reached in as rationalistic a fashion as that which depended on the ontological argument which he rejects: it is the logically necessary outcome of what is represented as analysis of the world into the formative elements without any of which the world could not be forthcoming. His grounding of God thus resembles Spinoza's rather than that of Descartes or Leibniz; and it differs from that of most theists of the present day in its tacit claim to certainty for the logical understanding instead of to probability such as at bottom is not a logical but a psychological affair for the interpretative reason.

F. R. TENNANT.

An Adventure in Moral Philosophy. By WARNER FITE. London: Methuen & Co., 1926. Pp. x, 276. 10s. 6d.

AT last a book on ethics which is worth reading! The Princeton professor has deserved well of the Republic of Letters, and his book, which appeared a year or so ago in America under the name *Moral Philosophy: the Critical View of Life*, should go a long way to enliven the dullest and most dismal of the philosophic sciences, and to revive an interest in ethics which has long been flagging. For not only is it an example of that refreshing rarity, a philosophic book which has literary quality, but it is truly named and definitely of an adventurous description, piquant and not infrequently approaching the limits of the academically permissible, at any rate in American universities. The thought too is fresh, and quite as original as it is prudent to be. It displays Prof. Fite as a knight errant setting out gallantly to tilt at the mechanical rehearsal of platitudes to which moral philosophy has so long been reduced.

In the comparison of Prof. Fite to a knight errant, however, all the implications of the phrase are intended to the full. There is something quixotic about his enterprise. There is also something tragic in the sight of a professor daring to enliven his subject; for his proper academic function is to *kill* any human interest it may have. And approval of the gallantry of a knight does not mean blindness to his errors. I do not think that as a moral guide Prof. Fite is inerrant—indeed he seems to be often and deeply wrong—but all his errors are stimulating and instructive, as may appear from the analysis which follows.

The main object of Prof. Fite's quest is to show that ethics can be consistently viewed from a standpoint which is at once intellectualistic and individualistic or personalistic. He is a champion of the Socratic paradox that virtue is knowledge, and nothing else. Accordingly he defines morality as "the self-conscious living of life" (p. 2); so that "to be moral is to know what you are doing," and "a man is moral or immoral so far as he lives his life

knowingly" (p. 4). Again he makes the moral philosopher a student of *persons* (p. 12), which is what distinguishes him from the psychologist, not a layer down of moral laws and an upholder of absolute standards. "The moral life is not so much action as thoughtful action" (p. 44), "an art rather than an applied science" (p. 47). This attitude regards all moral codes as relative—primarily to the social conditions under which they arise—and has no use for authoritarian standards; its aim is merely to *understand* the various moralities. So it declares "I will understand them all, I will make them all my own: I will be in bondage to none" (p. 48). It rejects therefore Kant's categorical imperative (the typical morality of authority), regarding morality as "criticism of authority rather than deference to authority and choice rather than duty" (p. 59). "A free moral agent can be under no bond even to his creator" (p. 62). After having been stimulated by hearing that "reverence for superiors implies the point of view of primitive man" (p. 74), and that "a social organisation is a plain contradiction in terms" (p. 77), we learn in Chapter VII that the sphere of morals is the whole of life. Chapter VIII is a pungent criticism of the pragmatic attitude as represented by Prof. Dewey, which is said to identify 'progressive' with moral and 'conservative' with immoral, and is treated as essentially a sacrifice of present enjoyment to the future. Prof. Fite objects that "morality is not a simple question of conservative *versus* progressive" (p. 95) and that "to go through a hard and dreary grind for an end to be enjoyed only, if at all, in the distant future, is not morality but brutality" (p. 101); but he would like to 'lift' the term 'humanism' (p. 99). The next chapter, on 'the Wisdom of the Serpent,' discusses the place of intelligence in morals and its conflict with authority. As for him "morality is intelligence" (p. 113), Prof. Fite is emphatically on the side of the Serpent, the representative of critical intelligence, "able seemingly to perplex the Lord God himself" (p. 104); his reply to James's contention that "knowing is always for the sake of doing" is that "the only valuable fruit of doing is the knowing" (p. 113). But Prof. Fite sees no reason why "this so-called logical process should be venerated as the truest revelation of the spirit" (p. 119). "The ideal of cold-blooded thinking," the 'Thinking Machine,' *does not think*, and so in the end, "there is only one kind of intelligence, namely, personal intelligence" (p. 120), and "any moral world is a world of relations among persons" (p. 122). Chapter X denies that beauty and virtue are irrelevant to each other, and that we can continue to admire the art of an immoral man while condemning his morals, or continue to condemn the latter while admiring the former. Chapter XI, on the Beauty of Knowledge, shows how æsthetic motives enter into and determine even our apprehension of scientific fact, and declares "for a typically æsthetic activity give me the process of contructing a scientific theory" (p. 145). The next chapter, on Justification by Knowledge, denies the possibility of conscious wrong-doing, and

rejects "the distinction of the good man and the bad as a distinction morally irrelevant" (p. 162); it approves of *tout comprendre c'est tout pardonner*. In Chapter XII Prof. Fite, as a 'good Epicurean,' is willing "to refer all morality to the principle of good manners," which is "respect for the personality of your fellow" (pp. 176, 177), but insists that enjoyment demands reflexion and that "no fool can enjoy life" (p. 184). The chapter on the Substance of Life elaborates the point that "man is the only animal who knows that he is an animal" and "is also a biologist" (p. 206), and refuses to ascribe the same sublimity to the starry heavens and the moral law (p. 212). Chapter XV, on the Experience of Truth, extends to truth what has been asserted of morality. There is no final standard here either (p. 229), and "the experience of truth is neither the logician's experience of truth nor the scientist's experience. . . . It comes nearer to the conception of artistic truth, or poetic truth; or, if you please, of moral truth. And this truth I hold to be an insight into reality" (p. 230), and an expression of satisfied imagination (p. 237). Chapter XVI, on the Presence of the Divine, treats monotheism as an "expression of the same administrative convenience as that which prescribes one President for the United States or for the Pennsylvania Railroad" (p. 239), and points out that "in the logic of the religious instinct it may very well be that for you or for me God is just one person—and for each a different person" (p. 238). It also animadverts upon the depersonalisation of knowledge in science. As for the Absolute, it is "a derivation from the needs of business administration," and these should not be made "a criterion of divine truth" (p. 259). The final chapter, on Poetic Illusion and Poetic Truth, concludes that "the whole meaning of truth and of morality" is just humanism; but for it "human nature is not even human unless it be also divine" (p. 273).

The great value of Prof. Fite's argument seems to me to lie in this that he has dared to take seriously, and to work out to their logical conclusions, two principles to which other moralists do lip service, but from which they miserably shrink away in the execution of their designs. The first is that Ethics is moral *theory*, and that, as theory, it has nothing to do with practice: the second (for which see pp. 138, 168) is that the 'matter' of morals is always *personal* and that moral relations are of necessity personal relations.

Now the former of these principles is a specious error (to my thinking), while the latter is a much neglected truth: but it is invaluable to have both worked out with Prof. Fite's ruthless penetration.

In inviting him to reconsider his first principle I may confess to much sympathy with his desire to escape from the sterility and bankruptcy of modern ethics by going back to the Greeks, and, even at the cost of a ducking in Greek intellectualism, would agree with him that the intellectual factor in right action has been unduly

obscured. But he should recognise that though Greek ethics *started* in the intellectualism of 'virtue is knowledge,' intellectualism was not its last word. In the Aristotelian doctrine of φρόνησις it emerges from the mire of intellectualistic paradox, completely transcends it, and transforms itself into a thoroughly (and even excessively) pragmatic theory that right knowing is generated by right doing, while false opinion about morals is not a *cause*, but a product, of wrong doing. It is equally impossible therefore to act amiss and yet continue to hold true principles, and to be habituated aright and yet fail to develop moral insight into right action. Aristotle therefore emphatically does *not* hold that moral theory can be divorced from moral action. There is for him no such thing as *mere* understanding. Neither does he hold that ethics is concerned only with principles and not with particular acts. The primary function of φρόνησις is to *decide cases* and to guide action; and if Aristotle had only extended this close correlation of theory and practice from the 'contingent' sphere of conduct to the 'necessary' truths of 'contemplation,' he would have finished up a complete pragmatist.

It should further be pointed out that the real reason for the rise of the modern heresy that moral theory should have no relevance at all to the problems of action and should be entirely of the owl-of-Minerva-ish type, in which deeds valiantly done by day are vainly 'contemplated' after the event and in the dark, is after all merely an unfortunate break-down of Protestant moral theory. It had originally shared with Catholicism the assumption that the whole duty of man could be enshrined in a code (even one so incomplete as the Ten Commandments!) but when the latter, in the laudable endeavour to apply its code to actual cases, had elaborated a system of casuistry which stank in the nostrils of the unsophisticated moral man, and had in consequence suffered moral shipwreck, Protestantism balked at following out the code-ideal to its logical conclusion. Protestant moralists adopted the disingenuous expedient of discoursing endlessly about 'moral principles' and preserving a discreet silence about their applications. No wonder they were irresistibly drawn to the doctrine in which their tendency reached its culmination, Kant's Categorical Imperative. For this not only was not applied to action, but, by the very law of its construction, never could be. And academic moralists have been fairly successful in keeping their *secret de polichinelle*, to wit that, for this very reason, the Kantian principle is *totally devoid of meaning*. It is quite superfluous, therefore, for Prof. Fite to repudiate 'authoritarian' ethics. They have no 'authority,' because they have no force and no meaning. A 'duty' which is absolute, but enjoins absolutely nothing, is not an alternative to compete with any other theory of conduct. It is not even an obstacle to any psychological inquiry into the sense of duty and its functions. It is merely a bit of academic 'eyewash'. And the whole mistaken development which ends in it can be very simply avoided, by

dropping the code ideal and substituting the Aristotelian notion of *φρόνησις*.

But this does *not* commit the moralist to intellectualism, nor even to an exaggeration of the function of intelligence. It does not commit him to the hoary paradoxes which Prof. Fite has directly or indirectly taken over from the Greeks. He need not fuse manners and morals, æsthetics and ethics, and adopt the 'beautiful' as the only guide to life. He need not deny that a scoundrel may be clever (p. 108) and omit all reference to the Loeb-Leopold case. He need not deny that a rogue may have good manners, and a just man bad. He need not commit himself to a denial of 'incontinence,' and assert the impossibility of knowing one is doing wrong while doing it. He need not deny that immediate judgments in terms of 'right' and 'wrong' are familiar experiences with many of us, even though they are not linguistically recognised among the Greeks (or the French).

The truth is that the Greeks were a thoroughly abnormal people in moral matters, and it is no use blinking the fact. Their ethical intellectualism is a consequence of their blindness to the volitional side of life, for which the Greek language has no words, and is part of their abnormality. Intelligence does enter into right action, but there is more in morality than intellect. *Tout comprendre c'est tout pardonner* is not the *whole* truth; at the very least we must add *mais ce n'est pas du tout pardonner le tout.*

There is a further, very fatal, omission in Prof. Fite's moral theory. It is not a theory of moral *action* at all. It is entirely *ex post facto*, mere 'reflexion' on the act. It does not consider the act from the inside, as it feels to the agent, at all. It not merely does nothing to guide the agent, it does not *understand* his position, nor analyse his feelings. It is not merely practically useless, but also theoretically inadequate.

This omission, moreover, seems in the end to render Prof. Fite's theory inconsistent with itself. For it creates an incongruity between its *intellectualistic* and its *personalistic* aspects. For the personalistic side I have nothing but admiration. It is a great service to have brought out so clearly that for ethics at any rate, personality is an ultimate category, and that the *depersonalised* ('dispassionate,' 'disinterested') truth which looms so large in the sciences and in conventional philosophy is nothing in the end but abstraction and fiction. But so is the merely 'contemplative' intellect. The actual intellect is personal through and through, and cannot really be separated from the personal agent whose acts it enlightens, and by whose acts it is developed. To recognise personality, therefore, as an ethical ultimate, is really to abandon the absolute antithesis of theory and practice, to repudiate the fiction of 'pure intellect,' and to represent right living as a problem, *both* practical *and* theoretic, worthy of *all* our powers. Such recognition rightly deserves the name of 'humanism,' because it reminds us that as 'observers of life' we must not "fail

to remember that we ourselves are agents of life" (p. 195). I would earnestly beseech Prof. Fite to apply his warning to himself.

F. C. S. SCHILLER.

Epicurus: The Extant Remains, with Short Critical Apparatus, Translation and Notes. By CYRIL BAILEY. Oxford: Clarendon Press, 1926. Pp. 432.

STUDENTS of later Greek philosophy should be very thankful to Mr. Bailey for this volume, which contains a critical text of all that is presentable in the remains of Epicurus (the three *letters* from the *Life* in Diogenes Laertius, the κύριαι δόξαι, the certainly guaranteed fragments), as well as the *Life* which forms Bk. X of Diogenes, with a reasonably full *apparatus*, an excellent translation and a partly detailed commentary. The one already existing work which can compare at all with Mr. Bailey's volume in respect of completeness is the *Epicurea* of Usener; in one way Usener is the more complete, as he has included in his collection a vast mass of references and allusions in later literature which refer to Epicurean tenets and sayings without actual quotation of *ipsissima verba*. On the other side, he gives us nothing comparable with Mr. Bailey's full commentary; his work has been carried further during the forty years since its appearance by the industry of various scholars, especially Bignone and Giussani; and, finally, the "anastatic" reprint of the *Epicurea* is by no means always to be read with physical comfort. For all these reasons, it was high time that the Epicurean remains should be edited once more in a collected form, in the light of the latest research and with the attention to accuracy and legibility characteristic of the Oxford Press. In a journal like MIND it is only possible to speak very briefly of the way in which the various departments of the task have been executed.

I should hardly be competent, not having made a special study of the subject for myself, to say much in detail about the construction of the text. But in the main it is clear that Mr. Bailey has proceeded on sound principles in paying careful attention to palæographical probabilities and in avoiding the violent and unnecessary emendation so characteristic of Usener. It is all to the good that Mr. Bailey's text is much more conservative of the MS. tradition than that of Usener, and also that his own conjectures, even when they do not convince, have commonly the merit of being Greek, though occasionally, perhaps, rather unusual Greek. This is much more than can be said of a good many of the inventions of Giussani and Bignone, particularly the latter. Mr. Bailey has dealt very gently with some of these oddities which he might have dismissed truthfully, if not politely, by the remark that

they are only possible to persons who *parum Graece sciunt*. (An example is Bignone's *νομίζει αὐτὴν περαίνειν* at the end of p. 5 of the *Life*, which is impossible, not because it is "obscene," but because it is not Greek for any thing which would make sense.) Personally I feel pretty sure that the pendulum has been allowed to swing a little too far, and that a number of Usener's changes, rejected by Mr. Bailey on the ground that some sort of sense can be got out of a MS. reading by straining, will make themselves good in the end. But my judgment on this point is not that of a specialist.

The translation will be of the highest value to all students; it is in general, as might be expected, both accurate as a verbal rendering and unambiguous. Occasionally I have noted slips, but not many. The worst is in the *Life*, p. 4, where *τῶν ἀδελφῶν ἕνα προαγωγεύειν κτλ*, an alleged charge against Epicurus, cannot mean "that one of his brothers prostituted himself and kept company with Leontion". The meaning, of course, is "that he—Epicurus—played the procurer to one of his brothers, and had Leontion as his mistress". So in p. 52 of the *Letter to Herodotus* *τὴν ἐπαίσθησιν τὴν ἐπ' ἐκείνου*, I should say cannot mean "comprehension in the *recipient*" of an auditory stimulus; *ἐκείνου* must mean the body which emits the "current" already spoken of as the stimulus; only in this way does the pronoun get its right force. The sense, assuming the text to be correct, is "the perception which is directed on the body" (the *ἀποστεῖλαν*), just as *ἐκεῖθεν*, two lines below, refers to the same body. In the last line of p. 93 (*Letter to Pythocles*) I note that though the text prints *ἐπ' ἀνατολῇ* the translation presupposes *ἐπ' ἀνατολήν*. Possibly Mr. Bailey meant to make this small correction, which seems to me really necessary. I note also that twice over (*Letter to Herodotus*, pp. 47*a*, 61) the expression, used of "idols," *πάντα πόρον σύμμετρον ἔχοντα* is paraphrased by "the movement is uniform," "having their movement uniform". I take it this means that *πάντα πόρον* is interpreted as "their whole route". Is this a defensible rendering? I submit that the words mean "*every* route," "every passage". The sense is that the "idols" move so rapidly because, as Lucretius often tells us, their atoms are so fine that they can "slip through" everything else, "all routes are open to them". I would add my regret that on several occasions where the MS. of the *Letter to Pythocles* gives the word *ἐπιπροσθέτησις* for the "occultation" of one celestial body by another, Mr. Bailey has refused Cobet's necessary correction to *ἐπιπρόσθησις*. I am afraid this means that he has forgotten the literal meanings of the two words. *ἐπιπροσθέτησις* can, of course, only mean "adding to"; *ἐπιπρόσθησις* is derived from *ἐπιπροσθεῖν* and means "running up in front of". It is only the latter word which could properly be used of a heavenly body which "occults" another. The metaphor is, in fact, from racing. The occulting body "fouls" that which is occulted, just as a chariot or trireme "fouls" a competitor in a race, by getting "across the track" of the second body. Cobet, I am sure, had this excellent reason for

his correction, and knew also that there is no place in Greek literature which could be produced to illustrate ἐπιπροσθέτησις in the sense required except these very passages. With one more remark I may conclude my "grumble" about these linguistic matters. I think it plain that Mr. Bailey, whom we have to thank for a good text of Lucretius, has come to the editing of Epicurus without a very full knowledge either of the language or the doctrines of pre-Epicurean Greek men of science. This, I suppose, is why he frequently comments on words or expressions as "odd Greek," when they could really be illustrated easily enough. Thus I note that in one place he makes it an objection to a proposed emendation that it brings the *plural* of φιλία into the text of Epicurus and that this is curious Greek. In point of fact the use of the plurals of words like φιλία is a characteristic device of Isocrates which was adopted by Plato and is often exemplified in the *Laws*. In another place we are told in passing that παρέλκειν, in the sense, "to be superfluous" is "later Greek," and the meaning is therefore rejected for a passage where it is otherwise exceedingly suitable. In fact, the word is a nautical metaphor, belonging to the current language of the great days of Athenian naval supremacy, and is used by Aristophanes (μὴ κενὰς παρέλκειν, *Peace*, 1306). (The English equivalent is "to cork," an expression familiar enough at Oxford.) Hence the doxographic tradition that Xenophanes said that the moon παρέλκει, "is a corker," in the cosmic boat, in all probability preserves the satirist's actual words. Of course, it will be seen from the very minor character of the little blemishes I have felt called upon to note how much I appreciate the quality of Mr. Bailey's work as a whole.

To come now to the Commentary. Here again, there is at least one matter on which I may be pardoned for commenting with a "grumble". Mr. Bailey, as I said, seems to me to have, like the Italian students of Epicureanism, worked back from Lucretius to Epicurus without thinking it necessary to make himself really at home with pre-Epicurean natural philosophy. I observe that his references for statements about the fifth and sixth century φυσικοί seem almost always to be to either Lucretius or the *Placita* of Aetius. Now neither of these sources is to be implicitly trusted. Both are influenced by Epicurean statements, and Epicurus and his succession were notoriously inaccurate in their accounts of the history of science. Undue reliance on them has unfortunately led Mr. Bailey to make a number of really serious mistakes in his identifications of the various scientific hypotheses brought forward in the so-called letter to *Pythocles*. And there are other mistakes in the commentary on this "letter" which might have been avoided by a more careful attention to the *Placita* itself. Thus it is the very reverse of the fact to say (p. 281) that in teaching that there is more than one "world" Epicurus "differed from most of his predecessors". Before the time of Plato, as the doxographical tradition shows, the believers in "infinitely numerous worlds"

were the majority; this is why Timaeus in Plato finds it necessary to lay so much stress on the denial that there are "many worlds". "The Pythagoreans conceived of *a* triangular world" (p. 282) is an odd way of saying that *one* Pythagorean, Pelion of Himera, believed that there are 183 "worlds" arranged in the shape of an equilateral triangle. The note (p. 292) on § 93, 7 goes quite astray in finding an allusion to Democritus; Epicurus is unmistakably referring to the "spirals" of the *Timaeus* (39*a*). At page 294, the view that the moon is self-luminous is described as that of "Anaximander and Xenophanes": it was, in fact, the view of everyone until Empedocles announced the discovery that the moon shines by reflected light. The account of lightning referred on page 304 to Anaxagoras is, in fact, as is recorded in the *Placita*, that of Leucippus, the true founder of Atomism. The notes on page 322 show that Mr. Bailey has not understood what is the problem about the motion of the "stars" which is under discussion. The ἄστρα meant are the planets, and the question is the all-important one whether the planets revolve in the same sense as the "circle" or "sphere" of the ἀπλανές or in the contrary sense, and consequently whether the moon is the slowest and Saturn the swiftest of the planets, or Saturn the slowest and the moon the swiftest. The first is the old Milesian view, which goes back to Anaximander, the other the view, apparently originated by Pythagoras, represented by Plato's Timaeus, Plato, Aristotle, Eudoxus, and their successors generally. Plato had said in the *Laws* that it is an "impiety" to make a mistake on this point; Epicurus is retorting that, so long as you get God out of your physics, you are free to hold either view. Neither Bignone nor Mr. Bailey seems to have any insight into the real nature of the issue. So, though this is only a "sin of omission," I think it very unfortunate that the reader is never told that the attacks on the "astronomers" so characteristic of Epicurus are all meant as polemic against the greatest scientific men of the fourth century, in particular Eudoxus and his system of celestial mechanics, which was to be so important for the whole history of science. So again, in the notes on the *Letter to Herodotus*, we are told (p. 195) that the theory that we see by the emission of a ray of light from the eye "is usually attributed to Empedocles and was certainly held by Parmenides". Any one who has read Aristotle's criticism of Empedocles in the *de sensu*, where the important verses (Empedocles Fr. 84) are quoted, would know that Empedocles taught the theory in express words (this is why Timaeus is made to teach it by Plato); there is no evidence that Parmenides said anything about the matter, except one sentence which appears in the Stobaeus version of the *Placita* but not in that found in the MSS. of Plutarch, and cannot with safety be ascribed even to Aetius. And one would like to know Mr. Bailey's reason for saying that Anaxagoras used the *word* ὁμοιομερής. It does not occur anywhere in his extant remains, has every appearance of being merely a technicality of Aristotle, and has been denied to be

an Anaxagorean word by Burnet and others. Mr. Bailey may, of course, be right, but he ought at least to see the need of giving some reason for his assertion. I regret what strikes me as the wholly anachronistic treatment of the early physicists in this commentary all the more that a mere reading of Burnet's *Early Greek Philosophy* alone would have opened Mr. Bailey's eyes to the insufficiency of his knowledge about the science of the fifth and fourth centuries. Can it be that Oxford is the one place where Prof. Burnet's work has produced no effect? What is really wanted, more than anything else, in a commentary on Epicurean physics is a serious attempt to discover more completely than has yet been done how much of Democritus is really embodied in what professes to be Epicurus. Mr. Bailey has not even got so far in the way of preparation for this task as to be aware how rash he is when he asserts, as though it could not be denied, that Democritus regarded weight as an inherent characteristic of the atom. He is probably simply wrong, since Aristotle expressly says that no one before himself had recognised "absolute weight"; even if he is right, he should know that his statement is open to the gravest difficulties and needs a great deal more than mere assertion to make it pass. This want of real knowledge of early Greek science and the sources of our information about it, which Mr. Bailey shares with Bignone and Giussani, seems to me the one really grave and almost unpardonable fault in his work.

I hasten to add, on the other side, that the discussion of the meaning of *ἐπιβολὴ τῆς διανοίας* (pp. 259-294) seems to me an excellent and thorough piece of work, and to make Epicurus' theory of knowledge and the "criterion" much more intelligible than it has been hitherto. Of course I assume that Mr. Bailey is alive to the curious contradiction between this theory, which amounts almost to a Cartesian belief in "clear and distinct ideas," and the sensationalism of the psychology which reduces thought itself to a sort of finer sense-perception.

A. E. TAYLOR.

VI.—NEW BOOKS.

The Metaphysics of Evolution; with other Essays (new and republished). By THOMAS WHITTAKER. London: Williams and Norgate, Ltd., 1926. Pp. viii, 480. 16s.

In this substantial volume—it must contain at least 200,000 words—the author of *The Neo-Platonists* republishes (with certain revisions and alterations) two former volumes of essays, and as the most notable addition supplies the lengthy essay on "The Metaphysics of Evolution" which gives his book its name. More specifically, the first part of the book is a reproduction (with revision and some shortening) of *Essays and Notices, Philosophical and Psychological* which appeared in 1895 (with the addition of a MIND review published in 1908) while the second part is a new edition, largely augmented, of the author's *Apollonius of Tyana, and other Essays*, published in 1906. In the volume as a whole there are three essays not hitherto published, *viz.*, "Origen as Philosopher," "De Aeternitate Mundi," and "A New Metaphysic of Evolution". These new essays were written before the war, and have been altered very little.

From these indications, readers of MIND will readily infer that this volume as a whole gives a full and exceptionally interesting review of its author's prolonged and tireless devotion to philosophy. His aim from his Oxford days onwards, he tells us, was to work towards an ontology on the double basis of science and of idealism. This idealism was essentially of the type of traditional English experientialism, but he came to see that a certain degree of *apriorism* must also be admitted. The failure of the movement from Locke to Spencer in this particular showed as much; and he learned a great deal from Kant and more from Renouvier. In the main, however, Mr. Whittaker, approaching the Greeks and particularly the Neo-Platonists "when prepared for them," found them most instructive of all; and he improved his discovery by following the tradition of these ideas in the Fathers, and in mediæval and Renaissance times. Along with all this went his interest in science, in Comte, and in Clifford. From the new realists (at a later date) he was prepared to accept the co-equal reality of relations and of things related—but only so far as these realists platonised and were "one with (his) idealism".

Accordingly, all who are interested in the British tradition in philosophy, and all who are willing to see its (largely unconscious and unremembered) connexion with older veins of opinion, will find an unusual fascination in Mr. Whittaker's entire attitude to his problems; and it is needless to call attention to his great learning or to his exceptional clarity of exposition. Despite the apparently heterogeneous character of these essays, there is a constant recurrence to the same crucial problems (such as the cyclical or progressive interpretations of history, the limits of science and the validity of positivism, the relations between faith and reason, or the meaning of pantheism); and therefore there is a refreshing and unstudied sense of unity.

The last essay is the most solidly constructed in metaphysical regard and

abounds in interest. Its references to biological evolution, to be sure (while present, and in regard to Mr. Whittaker's defence of Weismann as giving the most thinkable account of inheritance, reasonably *sachlich*) are, so to say, thinking ahead of biology. Essentially it is an essay on the metaphysics of origin and finalism, of creation, the soul, and things invisible. "Given then," we read, "as the grounds for an evolutionary theory of the universe, at once that the order of events in time began and that nothing can come from nothing, what are we to say of that which was before this order? To me it seems that we are bound to assert that all potentially existed; and this means that it had a real existence though not that of an order of events in time." So far the prologue (and the reader will be suprised to find how readily his more superficial objections are met). We are therefore prepared to find (of Parallelism) that "the idea of the individual, supervening from the metaphysical possibilities of the universe and not phenomenally represented, modifies the real or psychic being that mass and energy phenomenally represent"; that "the deepest cause in biology will be found in the self-development of mind"; and finally, that "the universe as changing will give place to a timeless order, in which we must suppose, as Erigena did, that all individual existences, in returning to be consciously harmonious parts of the whole, are more themselves and not less than when they were apparently separated in the order of space and time". I am bound to confess that the relation between life and intelligence still seems to me very obscure on this theory, that I see no sufficient reason (according to the theory's epistemology) why organisms should not be just as phenomenal as chairs and tables (in one passage Mr. Whittaker does say this of the brain), and generally that the theory as a whole seems to have paid too little attention to the dangers of the kind of absurdity which Hegel (unintentionally) parodied for all time when he said in the *Æsthetic* that "physiology ought to have made it one of its axioms that life had necessarily in its evolution to attain to the human shape, as the sole sensuous phenomenon that is appropriate to mind". Mr. Whittaker, however, is anything but a dogmatist, and is keenly sensitive to the traps that lurk in imaginative speculation. He is as learned as he is acute, and there is neither profit nor sense in offering a few jaunty comments in a notice having the character of the one I am asked to give.

JOHN LAIRD.

Essays Catholic and Critical. By Members of the Anglican Communion. Edited by E. G. Selwyn. London, S.P.C.K., 1926. Pp. x, 452. 10s. 6d.

This interesting and scholarly volume has been issued by a group of writers who believe at once in Catholic authority and solidarity and in the work historical criticism has done in analysing and exhibiting the origins and foundations of the Christian gospel. It hardly needs saying that certain essays in the collection are of rather less value than others. That, for example, on the Reformation by Prof. Hamilton Thompson is of merely political interest, even if the politics are for the most part ecclesiastical. But there are others which form strikingly fresh contributions to a living debate.

Chief amongst these is Prof. A. E. Taylor's essay on "The Vindication of Religion". He calls attention to the fact that natural science has difficulties of its own which, from the strictly logical point of view, are comparable to those of religious faith. "If we cannot *demonstrate* that religion is not temporary illusion, neither can we *demonstrate* that science is in any better position" (p. 39). The probative force of argument in

either case falls short of absolute cogency. The old apologetic arguments for the being of God at least indicate problems which are still with us, and we have still to give full value to the principles that underlie the old answers. I may quote a passage which brings out the form in which Prof. Taylor would accept the cosmological and teleological theistic proofs. "The spectacle of movement and change which we call 'Nature' thus at least suggests the presence of some 'transcendent' source of movement and change which is strictly eternal, being above all mutability and having no succession of phases within itself, and is omnipotent, since it is itself the source of *all* 'becoming'. The orderliness and apparent purposive 'trend towards intelligence' in Nature similarly at least suggest that this omnipotent and eternal 'supernatural' is a wholly intelligent Will" (p. 58). There is a later passage which in like manner formulates the moral argument: "Reflection on the moral nature of man suggests a being who is more [than an eternal intelligent designer and source of Nature], the eternal something before whom we must not only bow in amazement, like Job, but kneel in reverence as the source and support of all moral goodness. . . . If nature shows us only the footsteps of God, in man as a moral being we see his image" (p. 70).

Other points of importance in Prof. Taylor's pages are the rejection of the fairly common philosophical view that the "eternal" is just the temporal fully understood; the contention that teleology, if recognised anywhere in Nature, must penetrate the whole; a noteworthy insistence on the real "otherworldliness" of Kant's ethics; and the writer's agreement with Prof. Clement Webb in holding that "the reverence we feel for the moral law really is an attitude towards an unseen being of transcendent purity and holiness of character" (p. 67). While stressing the fact that the saint's "experience" is, at least *prima facie*, as trustworthy as that of the thinker, the artist, or the patriot, Prof. Taylor is careful to point out that like all other forms of immediate experience it calls for interpretation and criticism.

I should say without hesitation that as a piece of philosophical apologetics Prof. Taylor's paper is one of the most remarkable published within recent years. It is difficult, however, to make out whether he puts it forward as a vindication of religion merely, or as a vindication of the Christian religion. There are signs which may be read either way. But if the second is meant, I feel that from his essay no adequate reply could be drawn to the objection that he has neglected to vindicate the dependence of Christianity, as ordinarily understood, on revelation mediated through *historical* facts. None of the considerations to which he appeals, in Nature, in moral experience, in the life of religious men, implies, so far as I can see, any reference to any particular elements of the past. The Christian faith does. This problem, which of all the religions Christianity has pretty much to itself, has not been faced by any of the essayists in the present volume; and yet to call it a vital issue is a mild expression.

The writers on Authority take the reasonable line of pointing out that there can be no such thing, for religion, as authority which is merely oracular; authority must rest "upon the broad basis of continuous verification and experience". This does not make it any less real. In principle it is conceded that conciliar definitions of great doctrines are not in their terms final. "It may be," one writer says, "that the progress of human knowledge will lead to a better formulation of the most venerable articles of the faith" (p. 115). And another essayist speaks freely of "the necessary reconstruction" of the idea of God.

The greater part of the volume naturally lies outside the special province of this journal, but to one or two items I ought to call attention. Thus Dr. Bicknell writes an admirable paper on Sin, in the course of which

he seeks to make room for the sounder suggestions of the so-called "new psychology," and the light it has cast on the structure and mechanism of mind. Similarly Dr. Mozley's penetrating essay on Grace and Freedom deserves the notice of those who have been accustomed to hold that we can supply an *exhaustive* account of moral freedom without bringing specifically religious considerations to bear. On the other hand, in his treatment of the Incarnation, I find the very hard saying—hard alike from the standpoint of philosophy and of faith—that in Christ the distinction can be made "between human experiences and a human subject of the experiences" (p. 193). Still, if Chalcedon is to be defended, may it continue to be done with the same finely discerning insight as here!

Mr. N. P. Williams contributes a masterly and even distinguished paper on the Origins of the Sacraments. No one who feels an interest in the *religionsgeschichtlich* theory of how Baptism and the Eucharist came to be can afford to leave this essay unread. The writer's argument to my own mind is convincing at virtually every point. In his closing remarks on the intrinsic nature of the Eucharist, however, he seems to feel it either impossible or unnecessary to conceive of any real alternative to what may be called, broadly, the "symbolic" and the "sacerdotal" view. But this is altogether too short and easy a method of dispensing oneself from the analysis of a third great theory, as old as St. Augustine, derived from him in its main outlines by Calvin, and familiar to eminent theological thinkers any time during the last three centuries. As real and objective in intention as the doctrine of the Roman Mass (on its sacramental not its sacrificial side), it is also spiritual. In English it has never been so nobly expressed as by Dale in his *Essays and Addresses;* and it is a drawback in a serious treatment of a great topic that one of the classic interpretations is thus passed over without a word.

H. R. MACKINTOSH.

Die Grundformen der wissenschaftlichen Methoden. By Dr. VIKTOR KRAFT. Hölder-Pichler-Tempsky A.-G. Vienna and Leipzig, 1926. Pp. 304, 9.40 M.

There need be no hesitation in describing this book both as sound and able. It opens with a telling argument that epistemology should be based not on purely abstract considerations but on a study of the actual methods of the sciences. However what the author gives us in his book is not really "epistemology" but rather a generalised logic. As might be expected from the title he is most interested in the problems raised by the new developments in mathematical theory and in questions like the nature of scientific induction, but he has also something important to say on the method of history. His work on all these points is of great merit and conveys a clear idea of the issues at stake.

An attempt is first made to clear the ground by an attack on the theories of Husserl. The latter is blamed for his reliance on intuition, but it is difficult to see how the author can dispose of the question adequately by the argument that the theories of a thing's essence cannot be built up without elaborate reasoning. I should have thought that would present no difficulty to any view which did not make "intuition" swallow up *all* knowledge. However this is only by way of introduction. The main part of the book naturally falls into two sections, according to the traditional division between deduction and induction, a distinction which the author is, however, by no means eager to uphold. In his account of mathematics he maintains the view that this science depends on thought and not in any way on the Kantian "intuition". Geometry he declares to be analytic in the sense that the conclusions are logically deducible direct from the

premises without the introduction of this "intuition" as a *tertium quid*. There must indeed, he admits, be a synthetic element introduced in the reasoning process, but this he finds neither in the construction nor in the proof but in the preliminary setting of the problem. Thus it follows by pure logic that $5 + 7 = 12$, given only that the question as to their sum can be asked at all; the knowledge or assumption that the question can be asked is synthetic, but once it is asked the answer follows analytically. Similarly the proposition that a straight line is the shortest distance between two points follows analytically from the synthetic proposition that it can be compared with other lines in respect of distance. There is much to say for the author's argument, but to call mathematics in consequence "syllogistically" deducible seems at least incautious language, nor does he altogether appreciate the significance for Kant of the distinction between synthetic and analytic. Turning to other sciences, the author contends that the sphere of the *a priori* deductive method is much wider than commonly supposed. He holds that mechanics is essentially deductive, and that there would be no impossibility in theoretical physics becoming a science like geometry. Principles like the first law of motion, he insists, are so remote from anything actually experienced that they could never be obtained by induction. But, further, he declares that the *a priori* in science is by no means confined to the mathematical element. "It is not the introduction of mathematics, but the introduction of idealised conditions and the deduction from these that gives such an ideal, deductive system." His view seems to be that the method of the sciences in so far as thus deductive is to enable us to realise the nature of certain universal elements in reality by taking these elements and drawing inferences from them as to what the consequences would be if they existed alone. In this way we see better what their nature and function in reality is than if we had examined them only in their actual working where the situation is complicated by so many other factors. The manner in which political economy isolates the economic motives and says what society would be like if governed by these alone or is like in so far as thus governed, is a good example of such a method. I feel that the author yields somewhat too much to the common tendency to describe fundamental assumptions of science as "arbitrary," but at any rate his theory here suggests a good reason why they should *appear* to be and yet not really *be* arbitrary. This part of the book also contains a defence of non-Euclidean geometry against its critics.

The section on the more empirical part of science is also very well done. Considerable space is occupied by a historical account of the subject and a criticism of the four methods of Mill. The author tries to show that "*induction*" has no peculiar logical method of its own but is really a combination of different *deductions*. He brings out well the point that the "empirical sciences" do not depend on number of instances but on difference of instances, and the importance for such inference of knowing whether your subject-matter is of a kind liable to much variation or not. History, he says, agrees with the physical sciences in aiming at general laws but differs from them in that the generalisations it seeks are confined to a particular country or period of time and that it does not hope to attach absolute universality. One genuinely new form of reasoning he does admit in the empirical sciences, the "Indizienbeweis," or a kind of argument from particulars like those used in determining the authenticity of a manuscript, but does not give a full account of it and then rather puzzles the reader by adding in his last page that it is the chief method of astronomy. The book is full of interest, and may be recommended thoroughly to students of the more general and philosophical type of logic.

A. C. EWING.

The Realm of Mind: An Essay in Metaphysics. By FREDERICK J. E. WOODBRIDGE. New York: Columbia University Press, 1926. Pp. ix, 139. $1.75.

Three Conceptions of Mind; Their Bearing upon the Denaturalisation of Mind in History. By ALEXANDER A. JASCALEVICH, PH.D. New York: Columbia University Press, 1926. Pp. ix, 107. $2.

In the first of these volumes, Mr. Woodbridge, showing himself the master of a style scarcely less pleasing than Mr. Santayana's and something less 'precious,' gives a free rendering of a point of view which he has endeavoured to expound more technically in a series of articles published in philosophical journals between the years 1904 and 1917. His cardinal contentions are (1) that when we attempt to define the mind we are led ultimately to consider, not an agent or being which thinks, but the realm of being in which thinking occurs, and (2) that our bodies are the agents of thought and the subjects of all our experience (p. 2). The three chapters in which these doctrines are set forth are entitled The Realm of Mind, Objective Mind, and Many Minds, respectively.

For the second of these contentions, so far as I can see, Mr. Woodbridge produces no positive evidence whatsoever, and very little evidence of any kind. In support of his first contention he offers, in part, an argument which is also negative, and, in part, proceeds by a circuitous process. The negative argument is that we must not endow our bodies with an agent which through the mediation of the body thinks of the world of bodies (p. 12) since this, worked out to the bitter end, destroys itself. When we ask why the 'agent' is thus foredoomed to suicide we are told that it is 'cut off' from physical reality or certain to 'lose contact' with the same. Since Mr. Woodbridge appears to hold, however, that knowing is an ultimate metaphysical fact in no need of any explanation whatever, it would seem that the supposed suicide might be avoided by any careful metaphysician who did not 'cut off' the mind, by definition, before it began to breathe.

It is also not wholly apparent what Mr. Woodbridge means by the 'definition' of mind which he prefers to approach circuitously. In general, surely, it would not seem very promising to say that because ponds are the realm of ducks, therefore ducks and ponds coincide in their definition, the navigability of ponds being precisely what is meant by being ducky—especially if it be frankly admitted that there are many characteristics which ponds and ducks do not share. Yet Mr. Woodbridge seems to say something very like this when he defines mind. Indeed he says very handsomely "Objective mind may be august, but it is not a human mind. It thinks not nor remembers. It perceives neither itself nor its world. It is a stranger to perplexity, doubt and error, and a stranger equally to philosophy and science" (p. 89). Minds in the plural, he goes on, and 'objective mind' do not belong to the same class but are related as walking is to a path. It seems plain, however, that even if walking implies some sort of a path, paths may nevertheless be entirely untrodden, so that the most one can say of them in this regard is that they are walkable and not that they imply walking. Mr. Woodbridge's 'objective mind' is just the logical structure of things, and a materialist universe, if there were one and if no mind ever came near it, would still have this logical structure. Why would it therefore be mind? I must confess I cannot see any plausibility in this statement except such as is derived illegitimately from the use of terms like 'inferences,' 'implications' and so forth, freely attributed to this logical structure. The

'inferences,' however, which are here in question are only *inferability* and nothing on earth besides; and on any ordinary view inferability may be entirely mindless. Despite the great interest of so much that Mr. Woodbridge says, therefore, it may be doubted whether he has even begun to approach his goal.

Mr. Jascalevich's book is at a much lower level of philosophical achievement, and he does not appear to be wholly at ease in his use of the English language. (He is, he tells us, the first Argentine student to study philosophy in the United States.) The impact of his phrases is as often a miss as a hit; and in the first two-thirds of his book, at least, he does *not* appear to be making a plain tale plain. His account of Aristotle's view of mind is too condensed to be valuable, and his description of Augustine's (with the saint's "endless charade between his unseen God and his inner self") too unsympathetic. What he says of Descartes seems to me very much better and often, indeed, very good. There is pith in his comment that "the mind with Descartes became lifeless in the same measure in which life became mindless". The conclusion of Mr. Jascalevich's argument, however, is something sudden. He wishes to show that the progressive denaturalisation of mind has been a progressive misdirection of the human intellect, and he wishes to show this historically. What he does, however, is just to assert it.

JOHN LAIRD.

Bacon und die Naturphilosophie (Geschichte der Philosophie in Einzeldarstellungen, Bd. 20). By WALTER FROST. Munich, 1927. Pp. 504. M. 10.

The Philosophy of Francis Bacon. By C. D. BROAD. Cambridge University Press, 1926. Pp. 67. 2s. 6d.

BOTH these works make a real contribution to the understanding of a great man who has been both belauded and decried with ample want of understanding. I may deal first with Dr. Broad's pamphlet, which reproduces the address delivered by him at the recent tercentenary commemoration of Bacon in Cambridge. The address is marked by all the lucidity and the peculiar wit so characteristic of Dr. Broad. Dr. Broad's sub-acid witticisms occasionally raise the doubt whether their ultimate source may not be in the "spirit-world," in the *anima* of Edward Gibbon; his graceful lucidity is all his own. In this Cambridge discourse he has very happily hit off the impression one might expect the Baconian philosophy to make on the mind of a modern physical philosopher introduced suddenly to the *De Augmentis* and the *Novum Organum* for the first time. There is a very happy mingling of admiration, criticism and amused astonishment. I am myself filled with unmixed admiration for the skill with which so much not only of Bacon's thought but of the very language of his chief works has been worked into so brief a lecture. If the thing had not been actually accomplished, I own I should have thought it almost incredible. It is interesting to note that the feature of the *Novum Organum* for which Dr. Broad has the most marked approbation is the account of the sources of error in the *pars destruens*, especially the doctrine of the "idols". Here Bacon is pronounced to be as much the superior of Descartes in thoroughness and insight as Descartes was his superior in appreciation of the methods required for a scientific physics. The brief discussion of Bacon's conception of a "form," again, is thoroughly illuminating. On the "inductive method" Dr. Broad says comparatively little, but comes to the same general conclusion as Mr. Levi, that the *exclusiva*, though valuable

for certain types of inquiry, is unhappily quite useless for the kind of inquiry Bacon rightly regarded as the main business of physical science, the discovery of "forms". On one historical point, the theory adopted in passing by Dr. Broad that Bacon's traditional reputation as the great prophet of scientific method is, in the main, the creation of D'Alembert and the "encyclopædists," there seems to be some exaggeration which is rightly corrected in Mr. Frost's work. Caution on this point might have been suggested, perhaps, by a simple recollection of the language in which Kant and Leibniz before him speak of Bacon.

Mr. Frost's agreeably written and well-documented book falls into two parts, not too well connected with one another. In the first 200 pages we are given a study of the life, character and writings of Bacon; the remaining 250 pages tell the story of the development of the "modern scientific" view of the world from Leonardo and Copernicus, by way of Kepler, Galileo, Descartes and Huygens, to Newton, Bacon being only occasionally referred to in passing. The general effect of this arrangement is that the natural order of the narrative suffers dislocation, and that the space devoted to Bacon appears a little disproportionate. Probably, I take it, the not wholly successful attempt to unite a monograph on Bacon with a more general study of the rise of the "mechanical theory of nature" has been imposed on the author by the necessity of shaping his volume so as to take its assigned place in the series to which it belongs.

Both divisions of the book contain much which well repays careful study, and both bear witness to the writer's appreciation of the critical position of the "mechanical interpretation" of nature at the present moment. Mr. Frost shows himself all through alive to the impossibility of equating science with mechanics, forced on our attention by the modern development of biological knowledge; he does excellent work, again, especially in the section devoted to Newton, in the way of criticism of Mach and the other "positivists of the strict observance" who see nothing more in the interpretation of nature than the fashioning of a convenient short-hand notation for the "routine of sensation". His estimate of Bacon, in particular, strikes me as both generous and thoroughly intelligent. Though Mr. Frost does not give his thought very precise expression, it seems clear that at bottom he is in agreement with the type of view advocated by Dr. Whitehead on the necessity of so conceiving the principles of natural science that they will be adequate for the interpretation of the facts of organic life, and that he is alive to the value, from this point of view, of Bacon's conception of the "forms". There are naturally occasional minor errors of fact in his statements. It is a curious blunder, for example, to say that (p. 90) the use of the name *cause* for the Peripatetic "four causes" is due to the Middle Ages and not to Aristotle himself; it is wrong again to state that the *Regulae philosophandi* were first inserted in the *third* edition of the *Principia* (p. 503), that the "mediæval Aristotelians" recognised, like Bacon, two souls in man (p. 148), that "erst Duns Scotus," among Western schoolmen, taught the plurality of substantial forms (p. 338), that Ibn Gebirol was an Arab (*ib.*); and three of these five mistakes are serious. I note also two serious omissions in the generally excellent historical notices of the official relations of the Church with Copernicanism. It should have been explained that Copernicus' book was not placed in 1616 among the absolutely condemned but only among those "prohibited *donec emendentur*," and also that, in the famous controversy between Grassi and Galileo, Grassi was, as it proved, substantially on the right side. But these are minor defects in an excellent book.

A. E. Taylor.

Opera hactenus inedita Rogeri Baconi: Fasciculus VII. *Questiones supra Undecimum Prime Philosophie Aristotelis primae et secundae.* Edidit ROBERTUS STEELE, collaborante F. M. DELORME, O.F.M. Oxonii e Typographeo Clarendoniano, 1926. Pp. xii, 160. 10s. 6d.

The eleventh book of the *Metaphysics*, as known to Bacon and his contemporaries, our book Λ, is the great primary source of the natural theology of the thirteenth century, and a comment on it, therefore, the proper place for discussion of the being and attributes of God and God's relation to the world. In the pages now just printed Roger confines himself pretty strictly to these questions of "theodicy"; the one wholly non-theological problem raised by his text, that of the precise number of the "spheres" and their "movers," is left undiscussed. A reader acquainted with the natural theology of St. Thomas will find that in the main the positions affirmed in the present work and the reasons urged for them are those already familiar to him, though Bacon's Augustinianism shows itself from time to time by such signs as the ascription of a "matter" to "separated" intelligences, the specifically Augustinian account of the *intellectus agens*, the readiness of the writer to accept, with some explanation, the belief that the "spheres" have souls, and by certain traces of the Augustinian "light-metaphysic". The volume is made up of two distinct documents in different hands, apparently reproducing two courses of lectures, a longer and a shorter, on the same text. Both are contained in the same MS. at Amiens, and both are assigned by Mr. Steele and Fr. Delorme in the *Introduction* to the end of the thirteenth century. Of the date and place of the lectures themselves nothing is affirmed for the present except that 1245 may be taken as a provisional date.

I cannot commend the editorial work as worthy of the University of Oxford. The *Introduction* tells us that the longer MS. is much the harder to read, being full of arbitrary contractions and only to be deciphered with confidence by one who has already divined what the writer intended to say. It is to be inferred that the MS. of the shorter course is more legible. Yet even this, as printed, contains bad blunders which ought to have been impossible to an editor competent for the task. Thus, the word *auctor*, referring to Aristotle, recurs some sixteen or seventeen times and on every occasion is represented in the printed text by *actor*. On page 128 we have the impossible sentence nulla virtus finita agit in instanti, quia sic infinita *imminuiri* (!) On page 138, Bacon's sentence secundum se totam est infinita illa virtus, ergo hoc modo a finito et ut infinita recipitur is made senseless by the perversion ergo *ad hoc modo* finito. On page 141 what obviously should be ideo cause spiritualis virtutem recipere non potest appears as ergo causa*m* spirituale*m* virtutem etc., and there are a fair number of similar cases. In none of those I have mentioned is there any editorial comment. It may be that the printed nonsense has been taken as it stands from the MS., or it may be that it has been produced by blundering expansion of contractions, but in neither case is the result creditable.

The longer document has fared much worse. In scores of passages it has suffered from erroneous expansions, omissions of negatives, neglect to remove the scribe's "dittographies," sense-destroying false punctuation, or several of these causes at once. In truth, the document has not been properly edited at all, each reader is left to do his editing for himself and the work could be much more confidently done if Mr. Steele and Fr. Delorme had simply reproduced the MS. with all its contractions as it stands. The following pas-ages, taken at random from a host of others, should justify these remarks. Page 87, 3-8 is printed thus: unde sicut illum actum nobiliorem dicimus in creatis; que ab eodem in idem, scilicet que ad hoc quod sit, non exigit aliud ut intelligere et rem scriptam;

et que prior et mediante qua alia, sic ymaginantur esse in creatore, quamvis ibi sit prioritas vel posteritas realis. To make grammar and sense we have to write and punctuate thus: unde sicut illum actum nobiliorem dicimus in creatis qui ab eodem in idem, scilicet qui ad hoc quod sit non exigit aliud, ut intelligere et *res scire* (or the like), et qui prior, et mediante quo alia, sic ymagina*mur* esse in creatore, quamvis ibi <*non*> sit prioritas etc. Page 84, 3-4, we find quod non est sciens in habitu nec in actu, quia habitus purus actus est, et potentia habitui. This is nonsense and is not bettered by the "editorial" suggestion that the last word should be changed to habitus. Read and punctuate thus, quod non est sciens in habitu, nec in actu (sc. sciens est); quia habitus *prior actu* est *ut* potentia *habitu*,[1] and you will see what the author meant and said. *Ib.* 16, differt actu scire rem et non esse actu is meaningless: read, of course, differt actu scire rem et *rem* esse actu. Page 81, 24, immediatior est creatura causatorum (!) quam sibi ipsi. Bacon, of course, said immediatior est creatura *creatori* quam sibi ipsi, as the context requires; what he is made to say in the printed text means nothing. Page 95, 34, id quod in exemplari cognoscitur ita fulgore et plenitudini suas cognoscitur lux; autem principium est omnis cognitionis is neither sense nor grammar. What Bacon said and the scribe meant was this; id quod in exemplari cognoscitur *in* fulgore et plenitudine *sua* cognoscitur; lux autem principium est omnis cognitionis. Page 19, 24, Averroes is credited with teaching that omnes proportiones et forme sunt minima in potentia que sunt motores primo in actu. In this Bacon adds "there seems to be an implied error". In fact, it is gibberish; what it ought to be Mr. Steele might have learned from a corresponding sentence on page 127, 22 of this very book; omnes proportiones et forme sunt <in> *materia* [no doubt written in the MS., m] [in] potentia que sunt <in> motore primo [in] actu. What the "error" was now becomes discoverable, and is, in fact, pointed out on page 128. But I wonder what Mr. Steele supposed Roger to mean in the sentences I have quoted, or whether he supposed him to mean anything.

A. E. Taylor.

The Psychology of the Methodist Revival. By Sidney J. Dimond, M.A. Oxford University Press, 1926. Pp. xv, 296. 10s. 6d. net.

Mr. Dimond's book was a thesis for the degree of Master of Arts at Leeds University, and he is to be congratulated on the choice of his subject. None of the many histories of Wesley and Methodism has ever made that extraordinary personality, and the movement built upon it, plain. That the precise little man, who lived by rule and cast lots to decide difficulties, who showed a shrewd common sense, and an almost superstitious regard for the supernatural, was a great evangelist to the most illiterate and ignorant, and one of the most remarkable organisers who ever lived, is a puzzle that calls for an explanation his biographers have not given. Mr. Dimond calls in psychology to aid history. That he has solved the mystery, and shown us the actual Wesley, it would be too much to claim. But it is bare justice to admit that he has made Wesley and his movement much more intelligible.

The man who undertakes such a book as this needs gifts in the sphere of history and psychology alike. Mr. Dimond moves easily among the recorded facts of Wesley's career, relating them pleasantly without being discursive. He has attached himself to no particular psychological school, but uses all to meet his needs. When he speaks of giving "a Behaviourist study" of the mind of Wesley, there seemed ground for misgiving that

[1] Or perhaps <quam> actus, <quam> habitus.

Wesley's mind might prove to be an epiphenomenon among chains of conditioned reflexes! But all Mr. Dimond means is that he has adopted and modified a scheme for the study of personality afforded by Dr. J. B. Watson, and he grants Wesley a mind and an unconscious. He is a little severe, as the fashion now seems to be, upon Le Bon and his "crowd psychology," but despite the defects of Le Bon's work, nothing that has been said disproves that a difference between crowd and individual psychology exists, even though Mr. Dimond calls it a doubtful distinction. He estimates carefully the influence of Wesley's childhood in the light of Freud's dictum that "the little human being is frequently a finished product in his fourth or fifth year, and only gradually reveals in later life what lies buried in him". But he does not find it especially important in Wesley's after-life.

Regarding Wesley's preaching, Mr. Dimond says "compared with the emotional oratory of Whitefield, the preaching of Wesley was calm, argumentative and appealed to reason". This is the impression Wesley himself gives of his own style, if we are to trust his journal, and his printed sermons are as logical and theological as Butler's. But one may quote against this Horace Walpole's statement "I have been at one opera —Mr. Wesley's . . . wondrous clever but as evidently an actor as Garrick . . . he told stories like Latimer of the fool of his college who said 'I *thanks* God for everything'". Sir Walter Scott spoke of Wesley as "a most venerable figure, but his sermons were vastly too colloquial for the taste of Saunders. He told many excellent stories." In view of these statements, and of the type of audiences Wesley gathered and so profoundly stirred, one hesitates to accept Mr. Dimond's judgment in this instance. Wesley had not the oratory of Whitefield, but that calm and logical appeals could actually have produced Wesley's recorded results, I cannot believe, if the psychological factors of all mass movements and revivals are taken into consideration.

An interesting study of Wesley's conversion is provided. Mr. Dimond points out that it took place in a Church of England, not a Moravian, meeting, though the reader of whom Wesley speaks as expounding Luther's preface to the Romans, was probably a Moravian. Mr. Dimond offers a psychological analysis, the removal of a complex, a conscious and unconscious process, and so forth, which is sane and suggestive. But in all such cases, it is hard to lose the impression that the psychology of religion is naming not explaining processes. Whether the naming is preparatory to the explaining, remains to be seen. The same suspicion attaches itself to the account of the rise and inward history of Wesley's societies. It is not because one takes any pleasure in the fact, indeed quite the reverse, but rather its own patent existence, that makes one admit that there is something even in an ordinary personality, and more in a Wesley, that a psychological analysis does not isolate. That does not lessen the value of such analysis, nor in any way discredit it. Least of all does it detract from the sympathetic and discriminating study which Mr. Dimond's pleasantly written pages have afforded us.

E. S. WATERHOUSE.

Instinct, a Study in Social Psychology. By L. L. BERNARD. Allen & Unwin. Pp. ix + 550. 15s.

This work professes to be "an investigation of the relative importance of instinct and habit in the development of social institutions and social control". The size of the book is perhaps justified by the importance of the subject under discussion, but it is doubtful whether it is justified by

anything the author himself has to contribute to the elucidation of the many difficult problems involved. In reality the book is for the most part a polemic against the theory of instinct, and the enumeration and classification of human instincts, adopted by McDougall and those who think with him. The point of view is frankly behaviouristic, but the author does not stop to consider, even if he is aware of them, the fundamental implications of this point of view. From first to last there is little that can rightly be termed psychology in the treatment. 'Instinct' is taken as equivalent to inherited complex reaction pattern. The opposition between 'instinct' and 'habit' is assumed to depend on whether the complex reaction patterns are inherited or "built up in response to the resistance of the environment". But probably no psychologist except the extreme behaviourists would accept this position in an unqualified and unmodified form. Certainly the sense of 'instinct' implied is not in accordance either with the traditional sense of the word, or with the sense in which it is employed by most psychologists—except the behaviourists—at the present time. If this sense is the correct and only one, then the psychologist as such is not really concerned with 'instinct' at all, and in a book discussing 'instinct' we must expect to find, as we do find here, very little psychology.

At the same time it must be conceded to Prof. Bernard that in the past professed psychologists, to say nothing of popular writers, have used the word 'instinct' in the most indefinite and indefensible way, and that his polemic against this kind of thing is entirely justified. Some of his destructive criticism is acute and conclusive as against such misuse of the term. But even in this regard he shows occasionally a striking lack of discrimination and of psychological insight in tilting with equal energy and abandon against views and theories of widely different psychological standing.

The one characteristic of the book from first to last is that it ignores any aspect or function of the living organism that might be described as distinctively *mental*. The discussion of 'habit' in chapter III strikes the keynote of the whole. The author assumes, without any hesitation or question, that habits are organised out of "smaller units or fragments of action patterns". How they are so organised is left a mystery, inexplicable except in terms of an organising psychical function. But this organising function is itself, according to the author's view, the product of a habit, since we read a few paragraphs later that "the cortical control system is primarily a habit or acquired system". The whole subsequent discussion of 'instinct' can be readily foretold from this view of 'habit'. What McDougall and others have called 'instincts' are of course 'habits'. What else could they be?

Apart from this general criticism of the work as a psychology of 'instinct,' this must be said in commendation of the book, that the reader, who has not the time or opportunity to wade through the masses of physiological, biological, and sociological literature, more or less germane to the subject of Instinct, will find a very good summary of the various results and conclusions reached, even if these have not been thoroughly assimilated by the author himself. Moreover some of the chapters are of considerable value from a wider point of view, even to the psychologist who believes that impulsions and 'urges' represent real phenomena in the universe which it is incumbent upon him to give some account of, for the light which they throw on the phenomena of instinct and emotion from a new point of view. The present critic has found the chapters on "The Organic Basis of Action," "Heredity and the Instincts," "Conditional Development and Delayed Instincts," "The Nature of the Emotions,"

and "The Emotions and Sentiments" of real interest and value in this sense.

JAMES DREVER.

Ability. By VICTORIA HAZLITT, M.A. Methuen & Co., 1926. Pp. x, 147. 6s.

It is rather a pity that Dr. Hazlitt did not make two distinct books of this, since she has two not very closely related contributions to make to the theory of ability, each of which would have gained from separate and more exhaustive discussion.

The first part of the book is concerned with the qualitative analysis of the mental processes involved in the exercise of 'general ability' or 'intelligence': the second describes experiments with mental tests, on the basis of which it might be possible to offer advice to university students in their choice between Arts and Science courses.

The theory of Intelligence here presented is in its main outlines a consistent development of recent views on the subject. The main emphasis is placed upon the notion of "confluence". "Intelligence is a problem-solving organisation, and its efficacy is the measure of the degree to which experiences are confluent." It is not quite clear whether Dr. Hazlitt means to assert that intelligence simply *is* confluence or whether confluence is one, possibly among several, essential factors in the solution of problems. More than one interpretation may be placed upon the term. In its most general application confluence consists simply in "the tendency of one part of experience to affect another" (p. 19). In other contexts the term is employed for specific modes of influence, including that which the literal meaning of the term suggests. There are forms of confluence which in no way assist in the solution of a problem, but in a process of thought these are overshadowed by the influence of the consciousness of the problem itself, and by the form in which the question is formulated. These elements in experience in some way produce the solution (when the necessary past experience is retained) though how they do so remains something of a mystery. The process is spoken of as "an organising act" mainly dependent upon two variables, (*a*) the drive which comes from the affective and conative setting, and (*b*) fecundity of ideas. But fecundity itself involves two factors, number and relevance of ideas, the latter being the more important. But why relevant rather than irrelevant ideas should be produced by the awareness of the problem is precisely what it is necessary to explain. The mere confluence of the different elements in the problem, so as to enable the thinker to envisage the problem as a whole, is not enough.

From some very good passages of introspective analysis (pp. 17, 20-23) it looks as if Dr. Hazlitt regards the important factor as one of inhibition being exercised upon irrelevant ideas rather than of direct stimulation of the relevant. Inhibition is exercised by confluent experience very much more drastically than by disconnected aspects of the problem. The rest depends upon quasi-mechanical association or Prof. Spearman's 'noegenetic principles'.

Part II of the book introduces some valuable contributions to the theory and practice of mental testing, but the results so far obtained are of a provisional nature. The suggestion that courses in Arts subjects require a better equipment of general intelligence than do those in Science should be provocative of some interesting controversy.

C. A. MACE.

The Psychology of Thought, approached through Studies of Sleeping and Dreaming. By H. L. HOLLINGWORTH. New York, D. Appleton & Co., 1926. Pp. xvii, 329. 10s. 6d.

The psychology of thought is an inevitable point of contact between psychology and logic, and both these sciences ought to co-operate to elucidate it. Unfortunately their practitioners, instead of coming closer together, are trying hard to avoid each other, and nothing struck me more, on a recent visit to U.S.A., than the way in which, nearly everywhere, philosophers and psychologists had drifted apart, and indeed were no longer on speaking terms. No wonder, seeing that each had been elaborating a technical language so different, and so unintelligible to the other, that both could feel perfectly secure against any neighbourly criticism! This practice is no doubt very conducive to the frictionless functioning of academic departments, but hardly to the growth of knowledge, and Prof. Hollingworth's book is a signal exemplification of it. He is a perfectly complacent and unabashed psychologist, whose contempt for logic is such that he does not even attempt to argue against those psychologists (like MacDougall) who betray any sensitiveness to the logical aspects of thought; they are simply dismissed with contumely as taking an 'occult' and 'animistic' view of thinking (*e.g.*, pp. 267-268). Yet a little more regard for logic would have done his book no harm. It might have improved the arrangement and exposition of his argument; he might even have avoided passages like his summary on page 320; "the redintegrative sequence we found to be the essential feature of such phenomena as meaning, memory and thinking. Since this principle was also found to be the fundamental feature of drowsy perception and of dreaming, we find sufficient justification for considering together such apparently unrelated topics as sleeping, dreaming, and thinking." Thus he appears to argue that thinking and 'drowsy perception' are the same because 'redintegrative sequence' occurs in both! We learn from the Preface (p. xiii) that the effect on Prof. Hollingworth of this discovery was "an intellectual clarification not unlike the old-fashioned thorough religious conversion," though he modestly adds that "the present attempt to communicate the fruits of this enthusiasm is both halting and feeble". It is to be feared that a logician on reading him might agree, but it may be doubted whether he would consider Prof. Hollingworth's 'justification' 'sufficient'. He would be more likely to point out that the argument suffers from an undistributed middle. Apart from such logical difficulties Prof. Hollingworth's book suffers also from the difficulty of understanding for what sort of public it is intended. It is too technical for the general reader, while the student feels the lack of full discussion and of references to the primary authorities. There are not many misprints, but the threefold repetition of 'philogenetic' (pp. 39, 40, 220), which should mean 'a lover of *Genesis*,' exposes Prof. Hollingworth to the charge of being a Fundamentalist at bottom.

F. C. S. SCHILLER.

Mental Life: An Introduction to Psychology. By B. EDGELL, PH.D., D.LITT. Methuen & Co., London, 1926. Pp. xvi, 275. 7s. 6d.

Psychologists are frequently criticised for their inability to contribute to the understanding of human nature as it is revealed in life and literature. If they be open to criticism of this sort it is not Dr. Edgell's fault. In this work we have a textbook which makes a serious endeavour to illustrate academic theory from these sources. It has the merit, moreover, that it

does not fall into the category of the merely superficial. The course is elementary, but so far as it goes it is on sound and scholarly lines. It has been framed for the purposes of students of Social Science, but it might safely be recommended for more extended use.

Many similar introductions have been published in recent years, but it would be difficult to find another which so subtly and neatly incorporates the later developments of psychological theory in the frame-work of a systematic and conservative exposition.

C. A. MACE.

De l'Analyse Réflexive. By EUTHYME ROBEF. Paris: Jouve et Cie, 1925. Pp. 177.

The object of this little book, dedicated to M. Léon Brunschvicg, is to determine the essential characteristics and "constitutive tendency" of the method peculiar to philosophical research, to show the different forms it has assumed among philosophers who have exclusively employed it (particularly Maine de Biran, Ravaisson, Lachelier and Lagneau, in France), and to reduce those forms to a single one "en saisissant . . . le vrai principe générateur de la méthode réflexive dans l'intimité de sa nature originale." Unfortunately, M. Robef's argument never moves, from one end of the book to the other, without a heavy apparatus of technical expressions which are nowhere explained, and the sentences are long and often involved. After two careful readings the book has refused to divulge to the present writer a clear idea of what precisely is the method of reflective analysis. The conclusions of the first chapter are mainly negative: *l'analyse réflexive* is not identical with *l'analyse physique* (apparently a collective name for inductive methods), for this yields knowledge of phenomena only, and philosophy aims at knowing "les existences dans leur pureté substantielle". At the end of Chapter I, we seem to recognise in the *analyse réflexive* (or *analyse régressive*) a germ of the Kantian "Criticism," for it consists in "working back from the elements of a problem taken as solved, to the very principle of its solution, or from certain known data to the essential conditions of their possibility" (p. 27). But in succeeding chapters, the resemblance grows ever fainter. In the second chapter two opposed conceptions of reflective analysis are described, the pure psychological conception, and the objective or mathematico-logical conception. The former seems to be the conception of self-consciousness, affirmation of the self and subjective experience generally; the latter, the conception of "object" generally, as the term other than self or act in the subject-object relationship. In the last chapter these two conceptions are further examined with a view to seizing upon their "radical identity". "L'acte primordial générateur de la connaissance," as dually conceived, is an act of experience which transcends any element that is phenomenal or immediately present to it. And from the standpoint of this act of experience, the two forms of reflective analysis find their fundamental and essential unity "en s'intégrant au sein d'une activité réflexive supérieure, dont l'analyse réflexive est le procédé coextensif et coessentiel à elle".

The book is badly printed, *fautes d'impression* abound. Besides the 20 errata specified, there are as many more which have evaded detection.

S. V. KEELING.

Étude sur le Parménide de Platon. By JEAN WAHL. Paris, 1926. Pp. 276. 20 fr.

Mr. Wahl has made it very difficult for me to write impartially about this study of the *Parmenides* by the singularly generous praises he has bestowed in more than one passage on some youthful articles of my own on the same subject which appeared in MIND thirty years ago. Mr. Wahl still holds to the interpretation which finds in the antinomies of the dialogue the clue to Plato's own ripest philosophical thought. I hasten at once to say that in his full analysis of the *Parmenides* from this point of view, he shows himself thoroughly familiar with most of the literature of the subject, that he makes his points with great skill, and that it would probably be impossible to work out an interpretation proceeding on the same lines more ably and subtly. The special originality of Mr. Wahl among modern interpreters of the *Parmenides* lies in his return to a view like that of the Neo-Platonists. He finds Plato's own metaphysic adumbrated not only in those of the antinomies which affirm both sides, but equally in those which deny both sides, of a contradiction. That is, behind the "one" which is also "many," we are to understand that Plato teaches also the doctrine of a "one" which has no predicates and "transcends being". This *ὑπερούσιον ἕν* Mr. Wahl identifies at once with the *ἰδέα τἀγαθοῦ* of the *Republic* and with the "one" which, according to Aristotle, is the formal constituent of the "numbers which are the *εἴδη*". There are two questions which I could wish Mr. Wahl to put to himself. On his ingenious exegesis Plato is made to deny as well as to affirm the "law of contradiction"; is it not a little strange, then, that no notice should be taken of this regrettable lapse in Book Γ of Aristotle's *Metaphysics*? Again, if the Platonic doctrine of "numbers" were a piece of mysticism rather than of mathematics, and is really contained in the *Parmenides*, is it not singular that Aristotle never refers to any dialogue when he is discussing that doctrine, but seems to regard it as known only to the auditors of his master's *ἄγραφα δόγματα*? And a still more general question remains when both of these have been disposed of. If Plato is "wholly serious" with his antinomies, is it not essential to his purpose that their apparently irreconcilable results should be reached by strictly correct logic; I mean, by logic which Plato himself regards as correct? And can we shut our eyes to the fact that the logic of the *Parmenides* is permeated by sophistical fallacies, and fallacies which Plato can and does expose, in this very dialogue, when it suits him to do so? Must this not mean that we are dealing with a burlesque of a logic which is not Plato's own?

A. E. TAYLOR.

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VII.—PHILOSOPHICAL PERIODICALS.

JOURNAL OF PHILOSOPHY. xxiii (1926), 15. **W. Savery.** 'On the Nature of Objective Reference.' [A very elaborate paper which professes to be a development of James's 'profounder' hypothesis of objective reference, 'self-refuting' as the latter was, and to be "identical with what the correspondence theory becomes when it is thoroughly analysed". But as throughout the author never distinguishes between a claim to truth and its validity, one never knows whether what he is discussing at any time is the merely verbal claim of the form of judgment or the processes whereby this claim is substantiated, and the result is obscurity.] **C. F. Taeusch.** '"Contiguity" and "Sufficient Reason".' [Contends that "'contiguity' and 'continuity' are conceptual instruments which practically exhaust the requirements of the law of sufficient reason," and that there is nothing else in 'explanation'.] xxiii, 16. **O. L. Reiser.** 'Probability, Natural Law, and Emergence.' [Points out that the attempt to discuss the relative probability of chance and design assumes a plurality of possibilities that there is meaning in the question "Could the universe have been different from what it actually is?" Also that if 'chance' is made subjective 'law' should be treated similarly. Further, the acceptance of statistical laws introduces indetermination into calculations, and the 'emergents' of contemporary evolutionary philosphy may be but the 'central tendencies' of statistical distributions. Suggests that "the future can influence the present," as is evinced by "atomic behaviour where the electrons appear to possess the knowledge of how to anticipate the future," and concludes that "whether there is purpose in the universe as a whole depends on the character of cosmic time".] **S. K. Langer.** 'Form and Content: A Study in Paradox.' [A true paradox being "always indicative of a false premiss," how shall the relation of "the abstract form of anything to its specific content" be conceived? "A logical form is always relative to a system" and thus "*the* form of an object . . . suffers from the same non-significance as *the* name of an object," and "there is no such thing as *the* form of anything". To assume it is a false premiss.] xxiii, 17. **I. Edman.** 'Adam, the Baby, and the Man from Mars.' [Stand for "the only three unprejudiced observers of the human scene," and typify, respectively, innocence, plasticity, and detachment. It is then shown that none of these personages can succeed in being what they stand for. "They will not do. No one will. Not even God who is always the God of one kind of realm only among an infinity of thinkable ones. That is a lesson for all hasty philosophers to contemplate before they speak of the last analysis, or presume . . . that their vision is a transcript of the Absolute."] **C. A. Bennett.** 'Religion and the Idea of the Holy.' [Comments on Otto's *Das Heilige*. Admitting the value of Otto's analysis of the holy as the distinctively religious experience, the author demurs to his complete separation of (1) the holy and the moral, and (2) the holy and the rational. He points out as regards (1), that "since the numinous implies some constraint . . . it is so far moral," while, as to (2), the 'non-rational' may be supplementary to the rational as well as its blank negation.] xxiii, 18. **G. W. Peckham.** 'The Existence of Ambiguity.'

[It is universally assumed that "the universe is an altogether unambiguous thing," and not 'double-natured' with a 'self-contradictory essence'. Whence it follows that "the act of coming to know a particular thing," being "the act of dispersing a special ambiguity concerning that thing" cannot be "a genuine part of the universe but must be 'appearance' and not reality". So by attempting "the theoretical exclusion of ambiguity from the universe, modern philosophy gives no adequate account of the intellectual means by which the world . . . is progressively mastered by man". Now that ambiguity really *is* may be shown by the divergent accounts of the *immediate*, *i.e.*, that about which the mind cannot be deceived, by philosophers.] Contains also a severe review of Contemporary British Philosophy, vol. ii, by S. P. Lamprecht. xxiii, 19. **G. W. Peckham.** 'How Intelligence dispels Ambiguity.' [Shows that "all types of epistemological theory are inept," that "cognition *is* an alteration or transmutation of objects of knowledge" and that "fidelity to the notion that what one means by 'knowing a thing' is observing what that thing definitely *is*, should be deemed an over-simple, uncritical, and even ridiculous, prejudice".] **W. Gordin.** 'The Philosophy of Relativity.' [A somewhat ecstatic paper, which not only hopes to invent "a methodology of the absolute," but has discovered "the fatal teleological fact that among some varieties the female spider and male spider devour each other while in copulation," thus out-doing the Kilkenny cats!] xxiii, 20. **J. Lœwenberg.** 'Philosophical Federalism.' [Reviews W. P. Montague's *Ways of Knowing*, the procedure of which is compared with that of Hegel's *Phenomenology*. In both cases, it is pointed out, what is reconciled or 'federated' is not the divergent views themselves but only the author's descriptions of them.] **L. A. White.** 'An Anthropological Approach to the Emotional Factors in Religion.' ["When one is profoundly affected by some unusual occurrence, is impressed with a sense of power, and above all, when the unknown invades the domain of the familiar, then one experiences the religious thrill. This is its essence." There follows an enumeration of the occasions on which this thrill is commonly felt.] xxiii, 21. **S. P. Lamprecht.** 'The Fable of the Bees.' [Apropos of F. B. Kaye's edition of Mandeville's book. Concludes that Mandeville "alone in an age given to extolling the primitive and the original understood the moral life to be a struggle to refashion nature and from the untaught animal to make the noble citizen of a great nation. He unfortunately took over from ascetic ethical systems a definition of virtue which resulted in giving a curious turn to the conclusions he drew with relentless logic, and he stated his combination of insight and error in a form guaranteed to irritate the pious and worry those burdened with great seriousness. But he wished above everything to divert the wise."] Has also a good review of C. D. Broad's *Mind and its Place in Nature* by D. Drake. xxiii, 22. **G. P. Conger.** 'What are the Criteria of Levels?' [Continues discussion with H. C. Brown, for which see xxiii, 5 and xxii, 11.] **A. Woods.** 'Evil, Omnipotence and Time.' [Argues that there is no problem, because a perfect universe is inconceivable, and 'power' takes time.] **V. M. Ames.** 'The Function of Æsthetic Experience.' ["The æsthetic attitude is located where the flow of habitual activity has been checked by a problematic situation, in the lull before reflexion sets in."] xxiii, 23. **H. L. Friess.** 'The Sixth International Congress of Philosophy.' xxiii, 24. **R. M. Blake.** 'The Paradox of Temporal Process.' [Both James and Whitehead were not satisfied with Russell's solution of Zeno's paradoxes, and regard temporal process as inherently paradoxical. But whereas James thinks that "no temporal process whatever can ever be completed, for every such process consists of successive stages which must occur in order," Whitehead's

difficulty is "how a temporal process can ever get started". The author's reply is (1) that a process ends when all its increments have been added and that this only takes a finite time, and (2) that it gets started "from the instant that marks its initial boundary".] **H. E. Cory.** 'Beauty and Religion.' ["Man the artist, when dominated by empathy and a sentiment which centers in love, seems in his form-making to have reached the furthest-flung frontiers of evolution, mindful of the ways of God and attaining with a steadily emerging freedom to a new power which is a continuance into eternity of form-making and form-enjoying, the power of immortality."] xxiii, 25. **R. S. Lillie.** 'The Nature of the Vitalistic Dilemma.' [Mechanistic conceptions work and the living conforms to the mechanical, but "no one can consider the problem of vitalism without recognising how much larger reality is than abstract conceptions. We may find it difficult to conceive of influences acting into the spatio-temporal continuum from without; but some such characterisation of the conditions seems required by many of the facts of vitality."] **H. B. English.** 'Naive Psychological Realism *v.* Critical Realism.' [Taking as his text Prof. Durant Drake's remarks that 'the *substance* of existence, everywhere is psychic stuff, sentience,' and that 'consciousness is essentially falsification,' the writer protests against calling them 'realism' and suggests that "the philosopher does not do well to find metaphysical difficulties in paradoxes, which proceed only from a highly artificial and unpsychological way of conceiving experience".] xxiii, 26. **M. W. Calkins.** 'On Certain Difficulties in the Modern Doctrine of Essence.' [Objections to Santayana. (1) "Santayana's essences, which are also individuals, are logically outlaws." (2) How can they be 'detached, concrete natures of things?' "How can the qualities or the nature of a thing be detached from it?" (3) The "affiliation between essence and mind" is officially denied, but without success. (4) "That essence is necessarily non-mental" is never proved.]

Revue Néo-Scolastique de Philosophie. xxviii^e Année. Deuxième série. No. 12, November, 1926. **A. Bertsen.** *La physique de Saint Thomas d'après la Summa contra Gentiles.* [Deals mainly with two points, the difference between physics, in the Aristotelian sense, and astronomy, and the question whether, according to the *S.c.G.*, there can be said to be *materia prima* in the "heavens". Strictly speaking, there is not; "matter" is not a *vox univoca*.] **S. d'Irsay.** *La possibilité ontologique chez Aristote.* [In Aristotle's text there is no sufficient discrimination between logical and ontological (real) possibility. But he definitely teaches that real possibility presupposes something actual as its foundation, though he is not unequivocally clear on the question whether a "pure essence" can be actual. He *seems* also to hold that real possibility pre-supposes necessity, the really possible being that which is necessarily actual when all the conditions requisite for its actualisation are present; yet he censures the Megarics for holding the same thing.] **O. Lottin.** *Les premiers linéaments du traité de la syndérèse au moyen âge.* [The conception of *synderesis*, the *scintilla conscientiae*, first appears in Western literature in St. Jerome's Commentary on Ezekiel. In the middle ages it led to the problems, (1) is *synderesis* a distinct "faculty"? (2) how is it related to the *ratio superior* in man? (3) is it impeccable? (4) what part does it play in the moral life? The article traces the history of the discussion from Anselm of Laon, at the opening of the twelfth century, to William of Auvergne in the first third of the thirteenth; the general result is that by 1235 there is general agreement in identifying *synderesis* with the *ratio superior*, assigning to it the function of guardian of the moral law and asserting that it is never finally extinguished; as yet there is no agree-

ment on the question of its inerrancy.] **N. Balthasar.** *Le panthéisme spinoziste. A la poursuite de l'unité métaphysique.* [Based on P. Decoster's essay in the 3rd volume of *Chronicum Spinozanum*. Agrees with Decoster that, under the mask of pan-mathematism, Spinoza offers us a kind of "intellectual mysticism". The Spinozistic conception of God pre-exists in Spinoza independently of its rational demonstration; the existence of finite individuals receives and can receive no rational justification in the system. Strictly speaking, indeed, it is only the absolute and infinite Being whose existence can be established by metaphysics; all that metaphysics can establish for "finites" is the possibility of existence, the existence of God as a cause capable of producing them. Hence the difference between the "pantheistic intrinsecism" of Spinoza and the "metaphysical intrinsecism" recognised by Thomism.] **L. Noël.** *Le congrès de Harvard.* [A full and vivid description of the principal discussions.] Reviews, etc.

Rivista di Filosofia. xvii, 3. Luglio-Ottobre, 1926. **Annibale Pastore.** *Critica dell' irrazionalismo del Meyerson.* [Pastore argues that Meyerson's scepticism of reason and science follows from and only follows from an identification of the laws of logic with the 'laws' of *Aristotelian* logic. He combats irrationalism accordingly by combating the alleged primacy of the principles of Identity and Invariance. He insists "on the necessity of logic de-aristotelising itself," and puts forward as the principles of a real logic the principles of Variation and Equal Differences.] **Luigi Bandini.** *Morale e religione nello Shaftesbury.* [From a forthcoming book by the same author on *La dottrina morale di Shaftesbury.* Describes the relations between Shaftesbury's theory of morals and the deism of his day.] **Alfredo Poggi.** *Filosofia e pedagogia.* [Champions, against Gentile and other 'Actualists,' the title of Pedagogy to be a possible science. Dealing as he does with the human spirit in its development, the teacher can and must know 'laws' of a higher order than the 'laws' of physics—namely the maxims or imperatives of what ought to be. Knowing is one activity and imparting knowledge is another, and one which has its own norms.] **Maria Fernanda Masi.** *La valutazione del tempo nell' idealismo.* [Activity is a becoming in time, not a timeless or eternal being. Past, present and future answer to the three moments, which are immanent in every act, of negativity, actuality, possibility.] Reviews, obituary notices.

Logos. ix, 3. Luglio-Settembre, 1926. **N. Abbagnano.** *L'idealismo inglese contemporaneo.* Cap. IV. [Gives a very fair account of Bradley's main logical and metaphysical doctrines. His criticisms and alternative doctrines involve the identification of Reality with Will. Thought stands to Will (or Reality) as symbol to the thing symbolised. The gulf is never spanned. "Thought is incoherent because symbolic, and it is symbolic because incoherent." However, Reality, being Life itself, does not escape us; it merely escapes any intellectual translation of it that pretends to be final.] **P. Gatti.** *Filosofia del linguaggio.* Cap. II. [The laws of grammar and linguistic structures generally are not arbitrary but authentic expressions of the laws of thought.] **F. Albeggiani.** *Il naturalismo di G. M. Guyau.* [Attacks the irreligion of Guyau, urging that his "anthropologism" and "historicism" are worthless, being vitiated by neglect to distinguish questions of origin from questions of validity.] **N. Abbagnano.** *Sul rapporto di pensiero e realtà.* [Defends, against critics, his theory, alluded to above, that Thought stands to Reality (which is Life or Will) not as copy, nor yet as author, but as symbol.] Reviews (including reviews of W. P. Montague, "The ways of Knowing," R. Otto, "The Holy," and "Science, Religion and Reality").

VIII.—NOTES.

CHANCE AND CREATION.

January, 1927.

To the Editor of "Mind".

Sir,

Prof. Mackenzie thinks that acceptance of Chance, the "exact opposite of creation," is a fatal defect of the Imaginism for which I am responsible (*Time and the Absolute*, Mind, Jan., p. 49). Idle to discuss now whether Chance or Contingency, as he suggests, would have been the most convenient term. Terms matter little. But allow me to correct the misreading of my work on which the criticism just cited depends.

There is no "exact opposite of creation" implied. On the contrary, in *Divine Imagining* chance is always discussed as a *feature of creation on lower levels* where no reflective consciousness obtains. When on these lower levels creative imagining, as I put it, "runs amok," there arise frequently events (long and short) which mar undoubtedly a world-scheme considered as a whole. These events are certainly not "particularisations" of any concept of the "good" such as is realised, according to Prof. Mackenzie, by the creative imagining of an Ishwara or Demiurgus who "means well". Facts are massed easily by sceptics against this view; a finite god or higher creative centre might produce a defective "art-creation" or world-poem but hardly one that is positively bad. How, for instance, have hamadryads and Gaboon vipers found their way into the poem? How are evolved those parasites which, in South American regions, first attack the human feet and then pursue their fell careers in the intestines? We might credit a Devil with such triumphs of design, but hardly Prof. Mackenzie's god who is busy in realising divinest "worth"!

The case for Demiurgi, for finite gods, planning and evolving world-systems—which, of course, may be indefinitely numerous—seems to me weak. A world-god is, perhaps, the outcome rather than the source of a system (*Divine Imagining*, ch. x). But, assuming the pre-existence of the world-god to the system, this god-hypothesis is at best most inadequate. Hells are imagined easily by using the experience which this earth supplies; while a paradise thus furnished, like Dante's, would bore a saint. Something has gone wrong assuredly. At some level or levels has supervened the unpredictably novel, the pure creation, which very frequently conflicts with, and mars, god's poem. Miscreations appear, not of his making which in part are ascribed to 'malevolent chance'. Ends are attained—or approached—in all miscreations, but often these ends are of narrowest worth. In relatively discrete regions creative evolution, in fact, runs amok, and that in ways which no allied natural events, preceding or simultaneous, determine in full. Thus arises that creature of nightmare, the hamadryad, infecting and fouling the quarter where it appears. The grim 'mutations' which produce it subserve an end—survival of the species—they are stages in creative solution of a problem. But the solution is of narrowest value. It is not determined by the total world-principle, but by free minor initiative within, and at war with, cosmic harmony. In it shows that same power which works in all causation, in industrial invention, in the making of the laws of science and in artistic production popularly so-called. When issuing in the unpredictably novel which infects the world, in a discord which mars its setting planlessly and to no profit, when working without reflective consciousness such as we enjoy, it has, on this level, an

excellent right to the name of Chance. "Universal determination" does not account for the mischief: no mere *vis a tergo* drives it into being. It occurs in a narrow centre of creation; as a grim novelty against which plan of cosmic width will have to react.

I may recall here that for the imaginist, as for Prof. Royce, there are in nature no rigid uniformities; only more or less of conservation never quite complete. "Laws" of causation are, what Karl Pearson called them, namely constructs of human creative fancy. In each case of actual causation there emerges novelty, and a portion of this novelty infects and worsens the cosmos. Organic evolution teems with such miscreations; with nightmares that are thrust upon the world-plan.

I note that Prof. Mackenzie's metaphysics reverts to the contention of Frohschammer, *viz.*, that "Phantasie" is merely a particularising agent, bodying forth spatio-temporal diversity. Belief in this factor may help Hegelianism to maintain a precarious existence for some time longer. Hegel's Logic, seemingly so aloof from our world, may, after all, be offered as the ultimate ground even of Krug's pen! Imagination is to particularise the universal categories as deduced by pure reason. But, all said and done, what content lies in bare categories or thought-determinations ("visible only to reflection" as Hegel urged) on which a magically innovating Phantasie could build? Whence the sensible in percept and image?

I suggest that a more fruitful initiative is the following. Discuss Imagining, not like Frohschammer and Prof. Mackenzie, as a mere factor, but as the veritable world-principle itself. Imagining is the only inclusive principle, embracing, as Dr. Schiller has allowed, not only all reality but, in a sense, all unreality as well. What Prof. Mackenzie labels 'logical' and 'valuable' falls among the many aspects of the principle. "God before the creation of the world" ought to be conceived in an adequate way. But of this anon in a slowly maturing work.

DOUGLAS FAWCETT.

Le Verger,
Clarens,
Switzerland.

BEHAVIORISM.

TO THE EDITOR OF "MIND".

SIR,

Mr. F. C. Bartlett in his excellent review of John B. Watson's "Behaviorism" in No. 141, page 82, of MIND cites as one of the most important general facts which have been actually ascertained in regard to conditioned reflexes this: "6. The 'unconditioned' stimulus has to be applied *after* the 'conditioned' stimulus if the desired result is to be secured". He continues "This is an extraordinarily interesting and definite experimental fact, the significance of which in regard to most of the relatively high level acquisitions which Watson calls conditioned reflexes ought to be thoroughly investigated. I would much like to see exactly how it stands in regard to a great many of the language acquisitions which are here treated as exactly equivalent to the conditioned salivary secretions of the dog."

I should like to refer your readers to an experimental investigation of mine, the results of which were published in a paper entitled "On Memory and the direction of Associations" which appeared in the *British Journal of Psychology*, 1913, V. 447/65. The chief result I obtained was this: "*In motor-memory associations are wholly forward, and in visual, auditory and imageless memories, they are equal in both directions.*"

What is stated here with regard to the low level Motor-memory which forms a large proportion of the memory concerned in language acquisitions also applies to physiological and biological memories (in Ewald Hering's sense), the former of which is concerned in Pawlow's Conditioned reflex. My result, however, stultifies the behaviorist doctrine. I concluded my paper with the following sentences:

"This irreversibility is probably not confined to the associations of the motor-memories, but applies to those of all efferent nerves as accelerator, inhibitory, secretory, trophic, etc., as well as vaso-motor.

"If we turn now to visual, auditory, and imageless processes quite different conditions obtain. We find as shown by my experiments, that associations are equally strong in both directions, and that they are reversible. Therefore it seems probable that we have here a fundamental distinction between what I propose to call physiological memory on the one hand, and psychological memory on the other. In the former the associations are quite irreversible; in the latter they are completely reversible."

Yours faithfully,
A. WOHLGEMUTH.

PROCEEDINGS OF THE SIXTH INTERNATIONAL CONGRESS OF PHILOSOPHY.

THE publisher of the *Proceedings of the Sixth International Congress of Philosophy* is Longmans, Green & Co., 55 Fifth Avenue, New York City and 39 Paternoster Row, London. The price of the volume in paper covers is $5.00; in cloth binding $6.00. Every active member will receive a copy without cost as soon as the book is off the press. Associate members are entitled to purchase one copy at the special price of $3.00. It is planned to publish the book in the late spring of 1927. Orders should be sent to the publisher, at New York or London, and not to the Editor of the *Proceedings*. It is requested that orders be sent in advance as far as possible to facilitate an accurate estimate of the edition needed.

EDGAR S. BRIGHTMAN, *Editor*.

WRITINGS OF MOSES MENDELSSOHN.

Anlässlich der 200. Wiederkehr des Geburtstages Moses Mendelssohns im Jahre 1929 bereitet ein Komitee eine kritische Gesamtausgabe der Schriften Moses Mendelssohns vor. Da es alles erreichbare Material zu verwerten bestrebt ist, bittet es alle diejenigen, die Handschriften, seltene Drucke oder Briefe Moses Mendelssohns (von ihm und an ihn) besitzen, um gütige Nachricht und, wenn nötig, um leihweise Überlassung. Alle Zuschriften sind an die Adresse von Herrn Prof. Dr. Julius Guttmann, Berlin N.W. 87, Wullenweberstr. 2, zu richten.

MIND ASSOCIATION: ANNUAL MEETING AND JOINT SESSION WITH THE ARISTOTELIAN SOCIETY.

THE Annual Meeting of the Mind Association will be held this year at Bedford College, Regent's Park, London, on Friday, 15th July, at 6.30 p.m.

It will be preceded at 5 p.m. by a lecture on "Newton" by Dr. C. D. Broad at Burlington House, arranged by the British Academy; and will be followed by a **Joint Session with the Aristotelian Society**, at Bedford College, for which the following arrangements have been made:—

FRIDAY, 15TH JULY.

8 p.m. Chairman: Prof. Nunn.
Address by Prof. Edgell.

SATURDAY, 16TH JULY.

10 a.m. Chairman: Prof. Moore.
Symposium: "Is the fallacy of 'simple location' a fallacy?" Miss L. S. Stebbing, Mr. R. B. Braithwaite, Dr. D. Wrinch.

2 p.m. Chairman: Miss L. S. Stebbing.
Symposium: "Facts and Propositions." Mr. F. P. Ramsey, Dr. C. D. Broad, Prof G. E. Moore.

8 p.m. Chairman: Prof. Edgell.
Symposium: "The Nature of Introspection." Prof. G. Dawes Hicks, Prof. Stout, Prof. G. C. Field.

SUNDAY, 17TH JULY.

10 a.m. Chairman: Prof. Stout.
Symposium: "The problem of Meaning." Dr. Schiller, Mr. G. Ryle.

2 p.m. Chairman: Prof. G. Dawes Hicks.
Symposium: "The Mutual Relations between Ethics and Theology." Prof. J. Laird, The Master of Balliol, Miss H. D. Oakeley.

8 p.m. Chairman: Lord Haldane.
Symposium: "The Nature of 'Objective Mind'." Prof. H. Wildon Carr, Prof. A. A. Bowman, Prof. J. A. Smith.

Accommodation will be provided both for men and women at Bedford College. The **inclusive charge** for board and lodging from Friday afternoon till Monday morning will be £1 11s. 6d.

Membership of the Joint Session will be open to all members of the Mind Association or the Aristotelian Society on payment, in advance, of a **Registration Fee of 10s.** The papers will be published by the Aristotelian Society in a Supplementary Volume, which will be sent free of charge to all who have paid the Registration Fee. It is hoped that it will be ready in time to be distributed a fortnight before the Joint Session.

Applications for membership of the Joint Session and for accommodation should be accompanied in all cases by payment of the Registration Fee, and, in the case of those who desire accommodation, also by payment of the inclusive charge; and should be addressed to

Prof. B. Edgell,
Bedford College, Regent's Park, N.W. 1.

Hours of Meals.

Breakfast	8 a.m.
Lunch	1 p.m.
Tea	4.30 p.m.
Dinner and Sunday Supper	7 p.m.

Members of the Joint Session not lodging at Bedford College may have meals in the College. The charges will be:—

Lunch	2s. 0d.
Tea	9d.
Dinner or Sunday Supper	3s. 6d.

Tickets for the dinner on Friday evening may be obtained from the Bursar, Bedford College, on or before Tuesday, 12th July. Tickets for all other meals may be obtained at the College on Friday.